

OCTOBER 28, 1944

Railway Age

Founded in 1856

THE LIBRARY OF
CONGRESS
SERIAL RECORD

**BODYGUARD
FOR
BRIDGES**



BYERS WROUGHT IRON BLAST PLATES

All stringers, diaphragms and brackets in this new bridge at Framingham, Mass., designed and built by the Commonwealth of Massachusetts (Department of Public Works) are fortified against locomotive blast gases in a time-tried manner—with wrought iron blast plates. The plates run at right angles to the tracks, as well as parallel, so that all steel in the path of the gases is covered with wrought iron.

Blast plates must have an unusual combination of service qualities, to meet the triple-threat conditions which are encountered. Condensed moisture absorbs soluble sulfur compounds and carbon dioxide from the flue gases, and becomes highly corrosive. The extreme variations in temperature resulting when hot gases strike cold blast plate cause considerable expansion and contraction. And the small particles of cinder, expelled at high velocity, have a

"sand-blasting" effect which tends to scour off any protective film and leave the surface exposed to further corrosive attack.

One classic example of the ability of wrought iron to meet these conditions is the Oswego tunnel installation. Records of the railroad showed that the original cover plates, which have successfully withstood the blast of corrosive gases for 61 years, were wrought iron.

The reason for this durability is found in the unique character of the material. Tiny fibers of glass-like silicate slag are threaded through a matrix of high purity iron. The fibers are immune to attack themselves, and act as baffles

to halt and diffuse any corrosion. Furthermore, they help to anchor the initial protective film which shields the underlying metal.

Almost every railroad is looking forward to the time when all structures can be restored to apple-pie order, and wrought iron blast plates will help to bring this about. You will find some interesting and helpful information on the subject in our technical bulletin, "Wrought Iron in Bridge Construction," which we will be glad to send on request.

A. M. Byers Company, Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

BYERS
GENUINE WROUGHT IRON
TUBULAR AND HOT ROLLED PRODUCTS

ELECTRIC FURNACE ALLOY STEELS • OPEN HEARTH ALLOY STEELS
CARBON STEEL TUBULAR PRODUCTS

CORROSION COSTS YOU MORE THAN WROUGHT IRON

UP GO THE PAYLOADS!



EVANS UTILITY LOADER

**makes one
box car
do the work
of two**

*The Evans Utility Loader—takes
the "hammer" out of the load!*

A permanent part of the box car,
this modern device is adjustable to
all types of shipments—locks them in
place securely—eliminates the "ham-
mering," vibrational impact caused
by slack and motion.



FOR THE GOOD OF THE RAILROADS

A Paper Shipment Totaling 108,000 Pounds

With both paper and freight car space at such a great premium these days—Evans Utility Loader is doubling the usual shipment—enabling a box car to carry 108,000 pounds instead of the average load of 50,000 pounds.

This practical example of increasing box car efficiency and earnings is just one of many dramatic commodity shipments that prove the value of Evans Utility Loader to railroad and shipper alike.

When you modernize box cars with the Utility Loader, you add a new source of extra revenue.

For this modern device can up payloads two and three times on countless types of freight.

★ ★ ★

We Must Eliminate Waste
in Shipping

E. Evans

PRESIDENT



**EVANS PRODUCTS
COMPANY**
DETROIT 27, MICH.

Evans War Products: Machine Gun Mounts • Tank and Automotive Heating and Ventilating Equipment • Evansair Water Heaters • Aircraft Engine Mounts • Airplane Landing Gear Beams • Battery Separators • Prefabricated Houses • Molded Plywood Products • Skyloader • Utility Loader • Auto-Loader • Auto-Railer • Auto-Stop • Stampings • Evansair Domestic Heating Equipment

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 117, No. 18.



Feel the Grip **of the HI-BOND Bar!**

Take a firm hold on a piece of Inland HI-BOND Reinforcing Bar and note its grip. This is important to you because when HI-BOND bars are placed in concrete they assure a more effective mechanical grip irrespective of the position in which they are cast or the direction in which they are pulled.

The Inland HI-BOND Bar gives the first real improvement in the bonding value of reinforcing bars in more than 30 years. The scientific design of this new Inland HI-BOND concrete reinforcing bar, with its reversed double helical ribs,

provides vastly greater anchorage and bonding strength. It provides more efficient transfer of stress at splices. The use of HI-BOND Bars will materially reduce the width of cracks thereby reducing the possibility of corrosion and preserving the appearance and safety of reinforced concrete members.

Inland HI-BOND Bars are made in nine standard areas in both new billet and rail steel qualities.

Write for the new bulletin on Inland HI-BOND Reinforcing Bars.

INLAND STEEL COMPANY

38 S. Dearborn St., Chicago 3, Illinois

Sales Offices • Cincinnati • Detroit • Kansas City • Milwaukee • New York • St. Louis • St. Paul

MT. VERNON CARS *Better-Built*

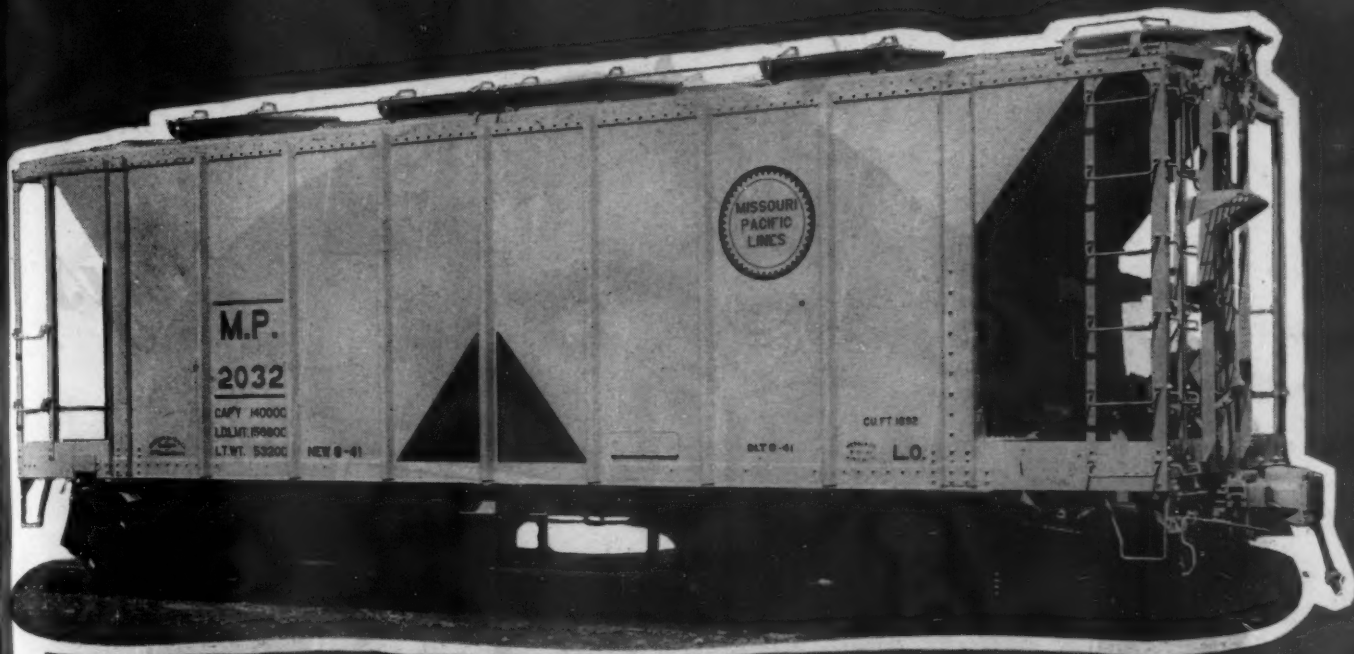


Skilled workmanship is a long-established tradition at the Mt. Vernon car plant. This fact, combined with modern facilities, expert supervision and rigid inspection, results in cars of unsurpassed quality, and the assurance of longer life with less maintenance.

MT. VERNON CAR M

PORTER
Equipment
Established 1890

Division of H. K. PORTER
General Offices: PITTSBURGH, PA.
Factories at: Mt. Vernon, Ill. • Philadelphia, Pa.



for a longer, more profitable life



R MFG. CO.

ED CO. CO., INC.
2210 10TH AVENUE

P. O. Box 1000, New York, N. Y. - New Brunswick, N. J.

MT. VERNON CAR DIVISION:
Complete Line of Freight Cars
LOCOMOTIVE DIVISION:
Diesel, Diesel-Electric, Electric, Steam,
and Fireless Steam Locomotives.
PROCESS EQUIPMENT DIVISION:
Complete Line of Chemical, Food, and
Petroleum Refinery Equipment.
QUIMBY PUMP DIVISION:
Screw, Rotary, Centrifugal, Chemical Pumps.
ORDNANCE DIVISION:
Projectiles, Heavy Forgings, Breach Blocks, Winches.

ays



a.c.f.

AMERICAN CAR AND FOUNDRY COMPANY

NEW YORK • CHICAGO • ST. LOUIS • CLEVELAND • WASHINGTON • PHILADELPHIA • PITTSBURGH • ST. PAUL • SAN FRANCISCO

W H A T E V E R a . c . f B U I L D S . . .

they all had to vote the straight stove-pipe ticket!

IN 1850, railroad travel was a rugged proposition. Bags in aisles, cinders in eyes and stern-visaged gentlemen monopolizing the stove were all part of the day's trip.

HOW different is even today's war-crowded travel! The bag in the aisle may still be there (and where else with the railroads carrying 25 per cent more passengers *even* than in 1943!) But the rest has changed remarkably—proper heating keeps *everyone* warm enough—adequate lighting lets *everyone* read . . . in-

vitingly-styled dining and grill cars stimulate *everyone's* appetite.

AND now the new streamlined rolling stock beckons the public to a richer mode of travel than it has ever known. As designer and builder of this equipment and in the light of long experience, Q.C.F. *votes* that these traffic-attracting luxuries and refinements augur well for profitable passenger car operation in the competitive years ahead.



IT IS KNOWN TO BUILD WELL!

For maximum wheel mileage



• *For economic reasons alone, long mileage in freight wheels has always been highly desirable. Today, when the available supply of wheels is reduced, it is doubly important that you buy those that will give you the longest service possible.*

U-S-S ONE-WEAR WROUGHT STEEL WHEELS average 200,000 miles under 50/55-ton service—160,000 miles under 70-ton service. Some have actually run more than 400,000 miles. Many have gone well over the 300,000-mile mark before reaching the condemning limit. If you want safe, fast freight service under the heavy loads you are hauling today, here are the wheels that will give it.

Because they have, to a superior degree, the ability to endure heavy brake action and impact at high speeds, these wheels insure fewer traffic interruptions due to service defects. Keep cars available to meet the increase in freight traffic expected in 1944.

The burden that the war has placed on your freight equipment is growing heavier daily. If you want your cars to deliver the goods, not only in the immediate future but in the strenuous high-speed service that postwar competition will certainly bring, change over to U-S-S One-Wear Wrought Steel Wheels, now. Nearly 2,000,000 are already in service.

CARNEGIE-ILLINOIS STEEL CORPORATION

Pittsburgh and Chicago

Columbia Steel Company, San Francisco, Pacific Coast Distributors
United States Steel Export Company, New York



UNITED STATES

under heavy loads and high speeds

U-S-S ONE-WEAR WROUGHT STEEL WHEELS *-deliver the goods!*

THEY MEET THE NEEDS OF WARTIME FREIGHT SERVICE

They are safer. That's important today when high speeds and heavy loads are wartime musts. Everywhere these wheels have been adopted, derailments and delays due to wheels have been sharply reduced.

They cost less. On a basis of cost per thousand miles, U-S-S One-Wear Wrought Steel Wheels average substantially less than the cost of freight-car wheels of other materials.

They improve service. Wheel changes are always a bugbear, especially in interchange. They cost time and they cost money. They take cars out of service. These wheels stay in serviceable condition longer, keep cars off the repair track.

They reduce unsprung weight. Keeping unsprung weight to a minimum is becoming more important as freight train speeds increase. U-S-S One-Wear Wrought Steel Wheels are light—will save 1400 pounds per car, reducing unsprung weight 12%—a definite aid in reducing track maintenance and in adding extra lading capacity.



STEEL

HOW "HI" IS HI-TENSILE

The stainless steel Budd uses in railway car construction has a tensile strength of 150,000 pounds per square inch. This is "hi-tensile" if there ever was such a thing.

But metals have been classed as "hi-tensile" when they have tensile strength of only 75,000 pounds, and even less.

So it is apparent that "hi-tensile" is not the whole story.

150,000 pounds is not the limit of tensile strength in stainless steel. Laboratory samples have been rolled to a strength above 400,000 pounds per square inch, but at that point ductility and toughness have practically disappeared.

The beauty of stainless steel used in Budd construction is that it retains the ductility of mild steel although having a strength about equal to that of spring steel.

ON THE ROCK ISLAND

In ordinary usage, there is hardly a member in a railway car stressed beyond 20,000 pounds to the square inch. But trains sometimes get into situations that are not normal. Excess strength is the safety factor—the reserve against emergency. Then strength and resistance to impact assume vast importance.

Take the case of center sills, for example. The A.A.R. requirement is resistance to compression of 800,000 pounds. If a sill will stand 1,000,000 pounds, it has a reserve of excess strength amounting to 20 per cent.

But the Budd center sill of stainless steel will withstand 2,000,000 pounds or a reserve of 150 per cent—seven and one-half times that of the sill which will withstand 1,000,000 pounds.

Budd chose stainless steel because, of all known metals suitable for structural purposes, it has the most desirable combination of physical properties. It is our belief that the best is none too good for American railroads.

EDWARD G. BUDD MANUFACTURING COMPANY
PHILADELPHIA • **DETROIT**

CHICAGO • NEW YORK • ST. LOUIS • SAN FRANCISCO • WASHINGTON

Budd

AMERICAN LOCOMOTIVE



ON THE ROCK ISLAND

4

Alco-G.E. Diesel-electrics



How Alco-G.E. Diesel-electrics Have Been

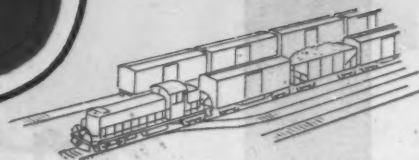
Winning the Rock Island's Endorsement

- 1938** — First 1000-hp Alco-G.E. switcher placed in service
- 1940** — Three 2000-hp road locomotives placed in service on famous "Rockets"
- 1941** — Another 2000-hp road locomotive and the first four 1000-hp road switchers. In 1942, these road switchers were released to the U.S. government for overseas duty
- 1942** — Four more 1000-hp switchers
- 1943** — Six more 1000-hp road switchers
- 1944** (As of March 1) — Another five 1000-hp road switchers



AMERICAN LOCOMOTIVE

Release 7 Steamers



Alco-G.E. road switchers, available 97 per cent of the time, slash motive-power requirements and speed up freight schedules; also reduce engine-house expense.

ON two Rock Island operations—totaling 525 miles—four 1000-hp Alco-G.E. units are handling the entire motive-power job: switching, accumulating trains, and hauling them on the road.

One result of this versatility has been the release of seven steamers for other work and the elimination of the cost of maintaining servicing stations for them. One terminal, on each operation, adequately cares for all the fueling, inspection, and maintenance needs of the diesel-electrics.

Because they are designed for combination road and switching service, the Rock Island makes full-time use of their 97 per-cent availability. On road trips, these 1000-hp diesel-electrics haul 1350-ton trains up long, curving grades of more than one per cent. Between road trips they are kept busy on

switching jobs. At both types of work they are making such effective savings in time that freight schedules have been speeded up—despite an increase in traffic.

The substantial savings produced by the Alco-G.E. diesel-electrics on the Rock Island indicate how effectively you can use them to speed present war traffic and at the same time lower your operating cost to meet future competition.

Our engineers will be glad to survey your system and give you the benefits of our combined total of more than 150 years of railroad experience. And because we build all three types of motive power—diesel-electric, electric, and steam—we can impartially recommend the one which is economically best suited to your particular needs.

These Features Adapt Alco-G.E. Diesel-electrics Particularly to Road and Switching Service



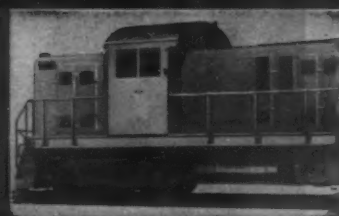
ELECTRIC DRIVE can use all engine power for traction at any speed



EXCELLENT VISIBILITY from cab for fast, accurate, and safe switching



SWING-BOLSTER TRUCKS and 40-foot truck centers for a smooth ride



TRAIN-HEATING FACILITIES for comfortable passenger service

and GENERAL ELECTRIC

113-85-9680

Can you do this with *your* locomotives?

The Superintendent of Motive Power of a midwest railroad has called our attention to an advantage of Timken Bearing Equipped steam locomotives that we had not previously heard or thought of.

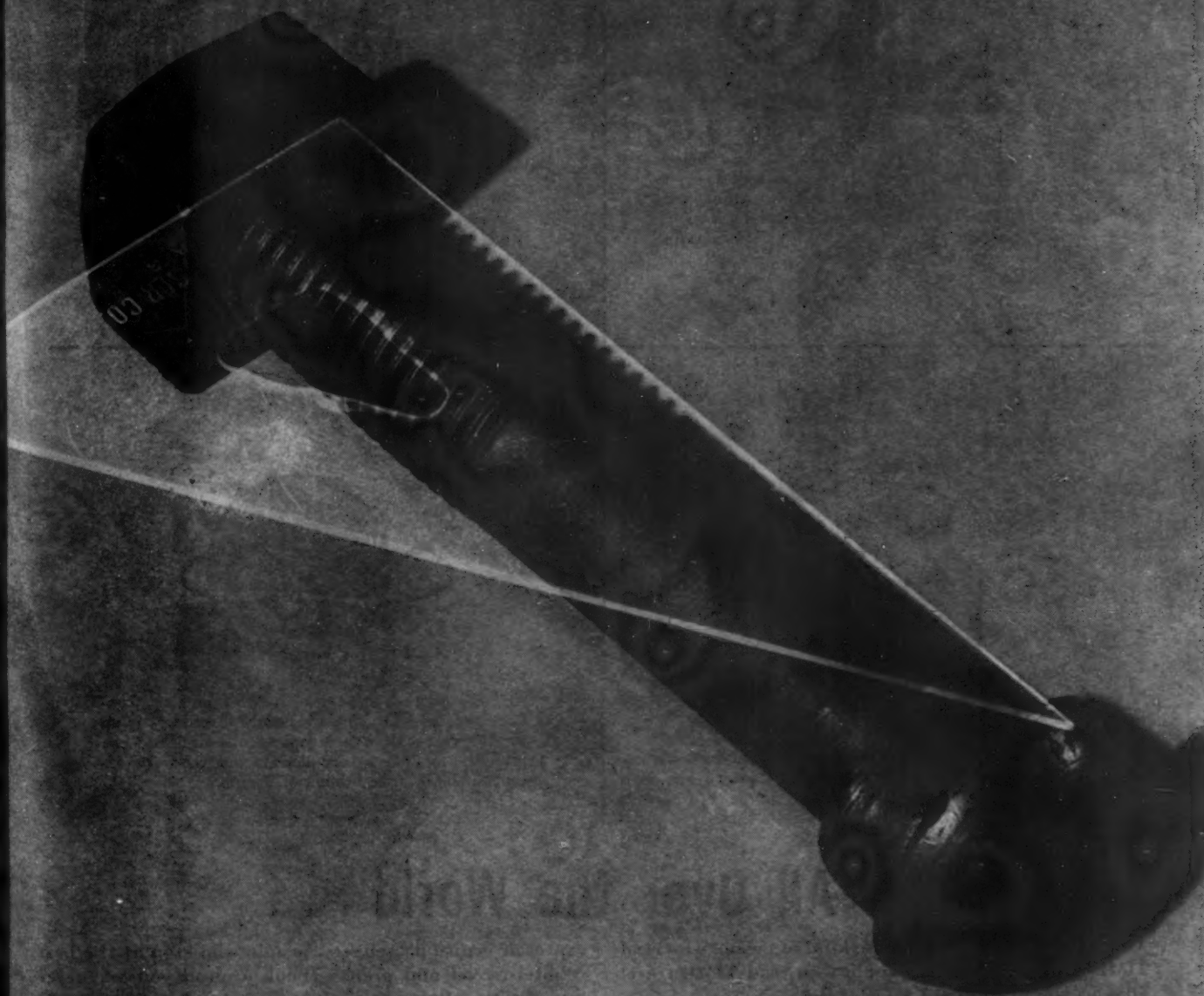
This railroad has found that as the steam pressure of a locomotive goes down after knocking the fire preparatory to washing the boiler, a locomotive equipped with Timken Roller Bearings can be started and moved on 10 pounds steam pressure, as against 40 to 50 pounds required to start and move a similar locomotive on friction bearings. Try this on *your* locomotives. The Timken Roller Bearing Company, Canton 6, Ohio.



TIMKEN

TRADE MARK REG. U.S. PAT. OFF.

RAILWAY ROLLER BEARINGS



QUALITY plus proper application and maintenance assure effective performance of track material

CF&I Track Bolts meet the rigid demands of our railroad customers for quality and satisfactory performance.

The Colorado Fuel and Iron Corporation

GENERAL OFFICES:
DENVER, COLO.

STEEL WORKS:
PUEBLO, COLORADO



There lives a Maharaja of India who used to go to great lengths to get his copy of *TIME*. Until the appearance of *TIME Overseas*, 2½ years ago, he was paying \$585.60 a year to have the Weekly Newsmagazine sent him by plane.



And, before the publication of *TIME Air Express*, 3½ years ago, a reader in the U. S. Embassy in Buenos Aires used to spend \$200 a year to get his copies of *TIME* by air.



Before we started printing *TIME* in Hawaii, the president of a paper company in Honolulu used to shell out \$200 every year to have his copy of *TIME* flown to him.



And now that we're publishing *TIME* on every continent except Antarctica, thousands of readers pay up to \$10 a year to have their copies sent—air mail, when possible—to almost every place in the free world except the bleak, bare reaches of Siberia.

All Over the World . . .

All over the world you find the kind of people who read *TIME*—and the kind of people who read *TIME* travel all over the world—and all over the U. S. too.

They travel a lot *more* than most Americans and they can afford to travel a lot *better*, too. (For instance, *TIME*'s more than a million subscribers have already flown more than 2½ billion miles at home and overseas.)

TIME is the magazine that Pullman car passengers,

prewar cruise passengers, people who stop at the best hotels, read and prefer. (Look around you whenever you're traveling and see how many copies of *TIME* you see—on club chairs, in Roomettes, in the planes.)

No wonder *TIME* has been the leader in Travel, Resort, and Hotel advertising for nine consecutive years (except for one year when it was second). And *TIME* will remain a leader in the postwar years—for *TIME* is tops with Americans who are going places.

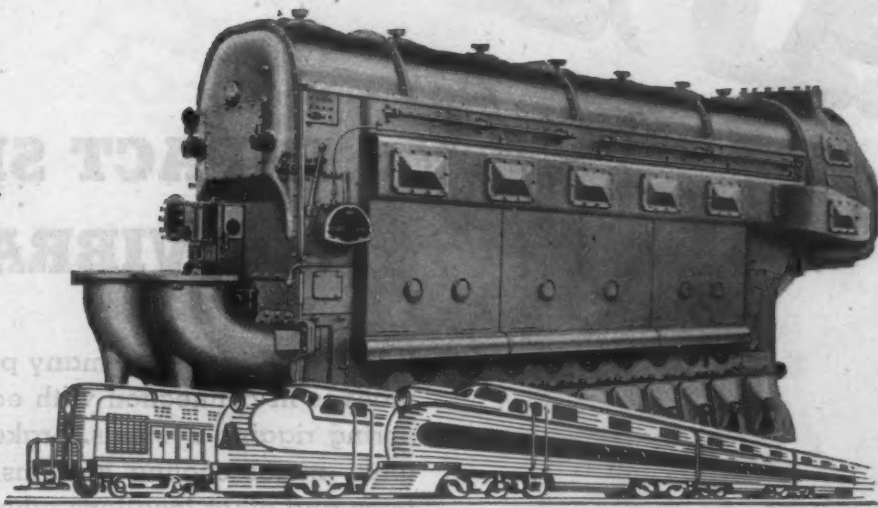
THE WAY TO REACH AMERICA'S

MOST TRAVELED MILLION



Opposed-Piston DIESEL

a Major Locomotive Advantage



THE opposed-piston Diesel which powers Fairbanks-Morse Locomotives:

1. Provides 2000 horsepower. Thus a 6000-horsepower locomotive requires only three Diesels.

2. Is simple . . . has relatively few small parts . . . requires few adjustments . . . is quickly serviced.

3. Is efficient . . . uses only .37 pounds of fuel per brake-horsepower-hour.

4. Is dependable . . . so dependable that the U. S. Navy has specified it repeatedly for that most exacting service—powering submarines.

Fairbanks, Morse & Co., Fairbanks-Morse Building, Chicago 5, Illinois.

BUY MORE WAR BONDS

A name worth remembering!



FAIRBANKS-MORSE

© 1944—Fairbanks, Morse & Co.

October 28, 1944

17

They Use

FABREEKA

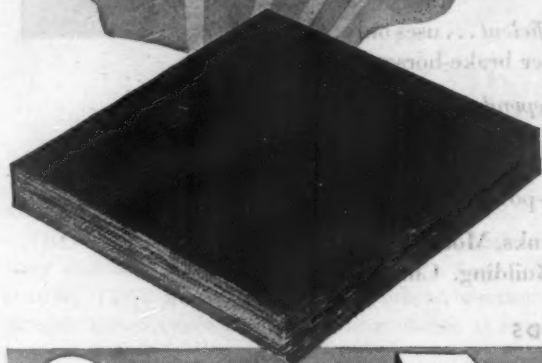
for

IMPACT SHOCK and VIBRATION

FABREEKA is used at many points on Locomotives in connection with equalizing and spring rigging systems, brake rigging systems, motor cooling systems, buffing systems and other locations where relief is required from the harmful effects of impact and vibration. Send for our recently published book "FABREEKA Railroad Applications for Impact Shock, Vibration, Noise".

[FABREEKA Pads, Washers, Bushings, Moulded Units and Fabreeka Units Fabricated with Steel.]

FABREEKA PRODUCTS COMPANY, INCORPORATED
BOSTON 10, MASS.



Used in RAILWAY PASSENGER CARS, Trucks and Platforms . . . LOCOMOTIVES, Steam and Diesel Electric . . . TRACK CONSTRUCTION, on Bridges, Crossings, Curves, Turntables and Track Scales.

Tested in Battle

In tanks, trucks, landing craft, planes, submarines, guns and many other applications FABREEKA has performed a useful and important service for our Armed Forces.

PULLMAN-STANDARD Shipbuilding Division

receives **HIGHEST SAFETY AWARD**



THE ADMIRAL LAND SAFETY AWARD

PRESENTED BY

THE NATIONAL SAFETY COUNCIL

PULLMAN-STANDARD CAR MFG. CO. SHIPBUILDING DIV.

FOR THE OUTSTANDING ACHIEVEMENT OF ITS LOYAL AND PATRIOTIC WORKERS WHO HAVE HELPED CONSERVE MANPOWER THROUGH THE REDUCTION OF ACCIDENTS, BUILD 10 MILLION TONS OF AMERICAN SHIPPING IN 1943, AND THUS EARNED THE EVERLASTING GRATITUDE OF ALL PEACE-LOVING PEOPLES.

TEAMWORK WINS

B. S. LAND

CHAIRMAN, JUDICIAL COMMISSION

FRANK KNOX

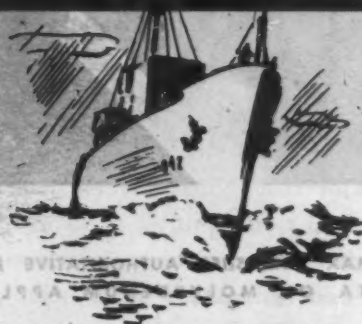
HONORARY CHAIRMAN, AWARD COMMITTEE

JOHN STEWELL

PRESIDENT, NATIONAL SAFETY COUNCIL

Competing with 267 other yards, the Pullman-Standard Shipbuilding Division recently received the Admiral Land Trophy for 1943, the highest possible safety award . . . given to only one yard each year.

• Pullman-Standard maintained the unparalleled low accident rate of 4.2, less than one-seventh of the average accident rate of 31.2 for all other shipyards . . . truly a miraculous performance and a tribute to Pullman-Standard workers.



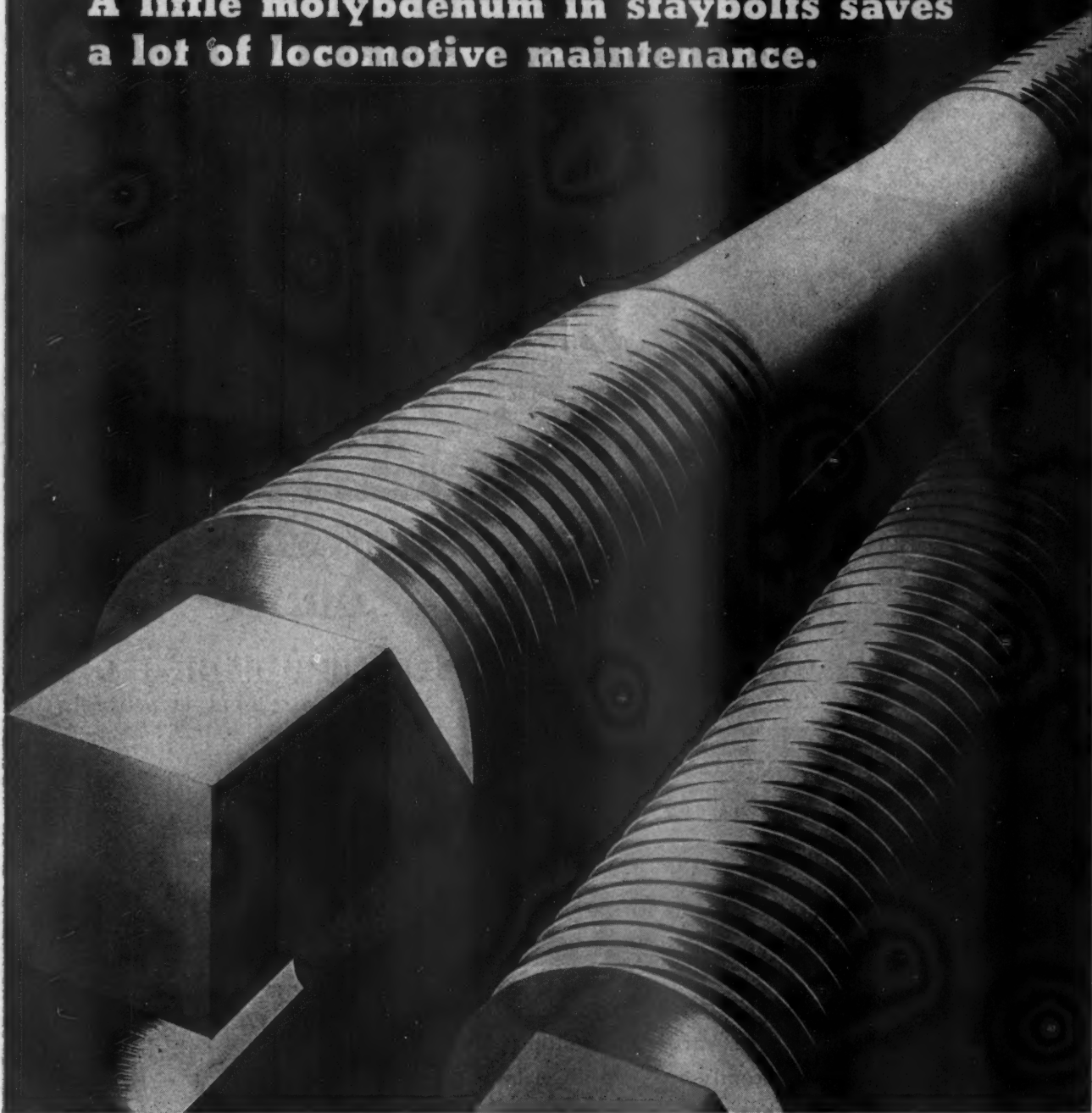
PATROL CRAFT ESCORT
VESSEL BUILT AT PULLMAN
... A SAFE PLACE TO WORK.

Pullman-Standard CAR MANUFACTURING CO.

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C. • PITTSBURGH • BALTIMORE • BIRMINGHAM • WORCESTER, MASS.

San Francisco Sales Representative, Mark Noble

**A little molybdenum in staybolts saves
a lot of locomotive maintenance.**



**CLIMAX FURNISHES AUTHORITATIVE ENGINEERING
DATA ON MOLYBDENUM APPLICATIONS.**



**MOLYBDIC OXIDE, BRIQUETTED OR CANNED •
FERROMOLYBDENUM • "CALCIUM MOLYBDATE"**

Climax Molybdenum Company
500 Fifth Avenue • New York City



LINES WHICH MUST NOT FAIL

Utilities, the backbone of modern civilization, have long fortified their service with equipment which, like their own, must not fail. Theirs is a rugged service which calls for the stoutest in men and materials ★ That this vital industry was among the first to adopt genuine Bendix-Westinghouse Air Brakes and Pneumatic Controls has been responsible for many brilliant chapters in the performance of this world standard of safety, which has just as important a role in your operations ★ If you would

take advantage of the many exclusive features found in genuine Bendix-Westinghouse Air Control you can take the first step by contacting your local Authorized Distributor or by writing direct to the manufacturer. This service is maintained in the interest of better, safer, more economical transportation and is yours without obligation.

**BENDIX-WESTINGHOUSE AUTOMOTIVE
AIR BRAKE COMPANY . . . ELYRIA, OHIO**

Bendix-Westinghouse

AIR BRAKES

AND PNEUMATIC CONTROL DEVICES



IT IS SIGNIFICANT THAT AMERICA'S FINEST MOTOR TRUCK FLEETS ARE EQUIPPED WITH BENDIX-WESTINGHOUSE AIR BRAKES

Lighter
Stronger

**There is
no safer
brake beam
suspension**

than

**Schaefer
loop**

**brake beam
hangers**

Better

**STANDARD
ON MOST
ROADS**

*Schaefer Light Weight Design
Insures more than Car Life*

Schaefer

**EQUIPMENT
COMPANY**

KOPPERS

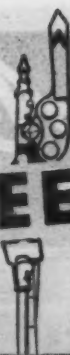
BUILDING

• PITTSBURGH, PA.

DROP-FORGED FOR LIGHT WEIGHT, HIGH STRENGTH, LONG LIFE AND SAFETY

1,350,000 miles

AT MILE-A-MINUTE SPEED



• One million, three hundred fifty thousand miles at scheduled average mile-a-minute speed is the remarkable seven year record of Southern Pacific Lines' twin "Sunbeams."

These famous trains operating between Houston and Dallas, Tex., are scheduled for 265-mile daily runs in 265 minutes. And their speed record shows them to be worthy namesakes of the sunbeam.

Efficient lubrication aids in the maintenance of schedules. Southern Pacific Lines use Sinclair Superheat Valve Oil

and Sinclair Driving Journal Compound on the "Sunbeams."

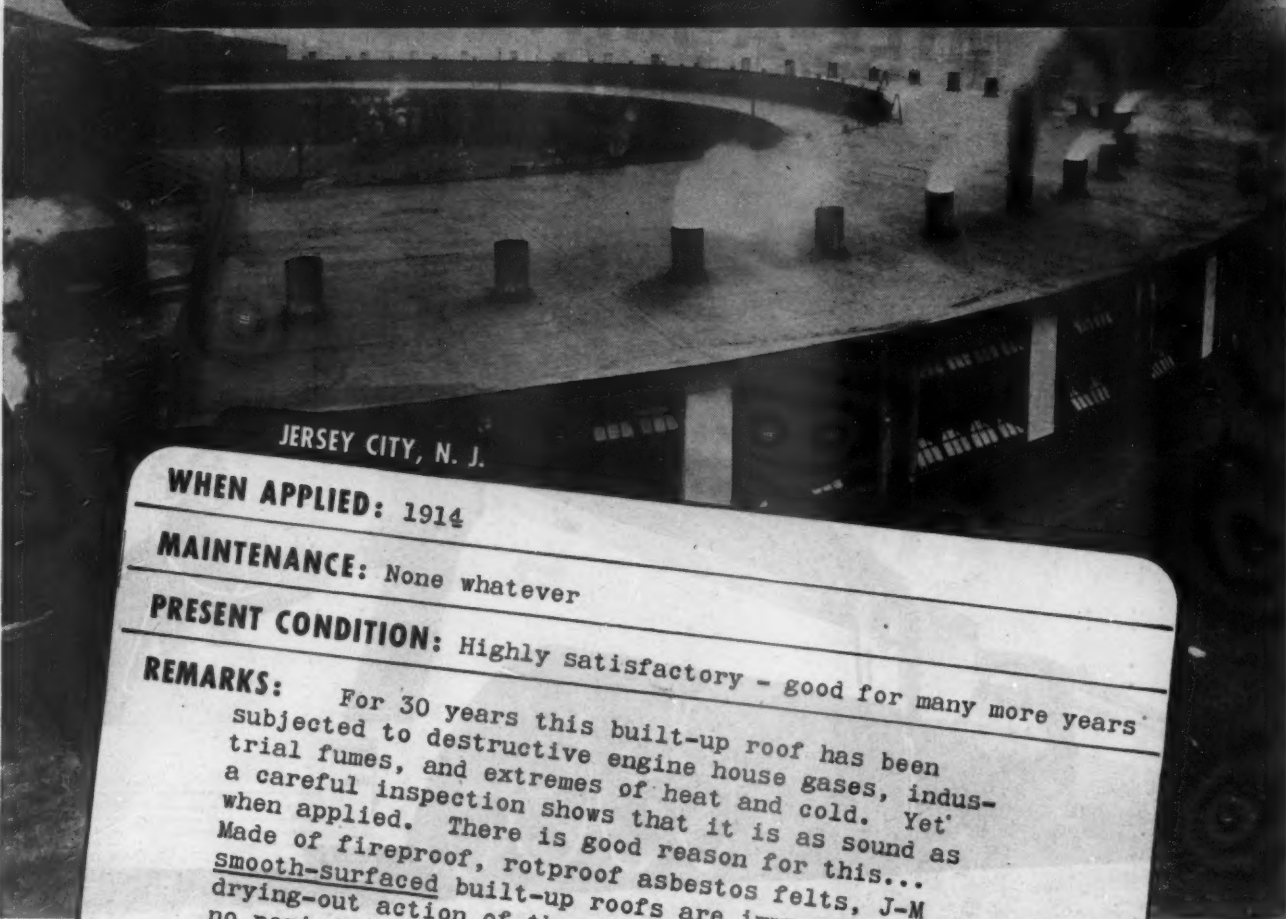
Superheat Valve Oil's high viscosity and high film strength resist extreme heats and pressures, providing greater adhesion on the working surfaces of valves and cylinders. Driving Journal Compound assures an even feed and steady film for journal lubrication at all speeds and atmospheric temperatures.

Write for further information about these and other Sinclair Railroad Lubricants.

SINCLAIR RAILROAD LUBRICANTS

SINCLAIR REFINING COMPANY, RAILWAY SALES, NEW YORK • CHICAGO • SAINT LOUIS • HOUSTON

Another PERFORMANCE REPORT ON J-M ASBESTOS BUILT-UP ROOFS...



JERSEY CITY, N. J.

WHEN APPLIED: 1914

MAINTENANCE: None whatever

PRESENT CONDITION: Highly satisfactory - good for many more years

REMARKS: For 30 years this built-up roof has been subjected to destructive engine house gases, industrial fumes, and extremes of heat and cold. Yet a careful inspection shows that it is as sound as when applied. There is good reason for this... Made of fireproof, rotproof asbestos felts, J-M smooth-surfaced built-up roofs are immune to the drying-out action of the sun and, therefore, require no periodic coating. They give long years of low-cost protection against fire and weather.

Why J-M Asbestos Built-Up Roofs last so long!

J-M Asbestos Built-Up Roofs are constructed of alternate layers of asphalt and asphalt-impregnated asbestos felts. Unlike the fibers of ordinary felts, asbestos fibers are solid pieces of stone. They cannot act as "wicks" through which the sun can draw out the oils from the waterproofing asphalts. Actually, the asbestos felts provide a flexible stone covering for the entire roof area. This accounts for their extremely long life with no mineral surfacing, and with no periodic coating.



Scrape the gray surface of a J-M Smooth-surface Built-Up Roof. Regardless of its age, you'll find black asphalt underneath—proof that J-M Asbestos Felts do not dry out.



Johns-Manville

86 YEARS OF SERVICE TO TRANSPORTATION

Insulations

Packings

Friction Materials

Refractory Cement

Building Materials

You can draw and paint THIS ZINC-COATED STEEL

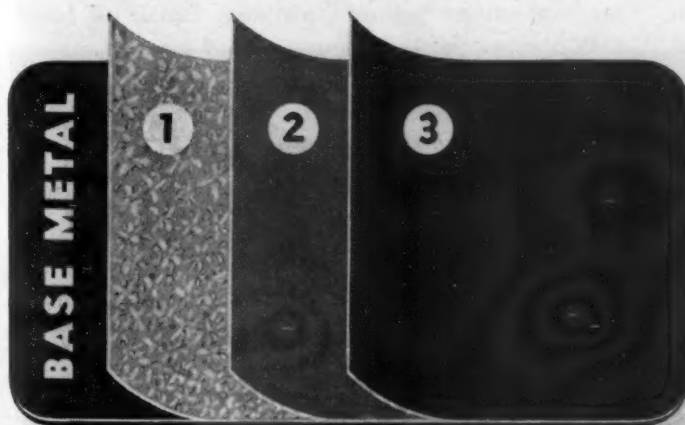
Consider the advantages of ARMCO ZINCGRIP-PAINTGRIP for car roofs. It forms perfectly without injury to the protective zinc coating. No peeling or flaking, no raw seams to invite rust.

Then it can be painted immediately without the delay and extra cost of pre-treatment. The special mill-Bonderized finish not only takes paint readily, but preserves it—retards early paint-aging and prevents frequent repainting.

Your freight and passenger car roofs will look better and last longer when constructed of ARMCO ZINCGRIP-PAINTGRIP sheets. We'll be glad to discuss its application for this or any other use that requires a special coated sheet steel with exceptional forming properties. Just address the nearest office of Armco Railroad Sales Co. Incorporated — or 3341 Curtis Street, Middletown, Ohio.

What it is . . .

1. ARMCO ZINCGRIP: A special zinc coating under—
2. ARMCO PAINTGRIP: A smooth, Bonderized finish that insulates zinc from—
3. Paint or Enamel applied in any shade of any color.



Cap strip for freight car roof, made of ARMCO ZINCGRIP. Even in severe draws like this, the zinc coating does not peel or flake.



ARMCO ZINCGRIP-PAINTGRIP panel for freight car roofs. The ZINCGRIP coating withstands severe forming without flaking or peeling, while the mill-Bonderized PAINTGRIP treatment takes and preserves paint (with no surface preparation required).



ARMCO
RAILROAD SALES CO. INC.



TWO DECADES OF PROGRESS

With approximately two-thirds as many locomotives and three-fourths as many freight cars, railroads hauled 57.6% more freight in 1943 than in 1920, the year when railways produced the greatest revenue net ton mileage previous to 1941.



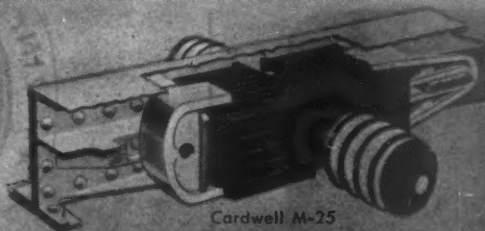
Meantime, freight car repair costs have decreased more than 10% per ton mile—definite proof of the adequacy of the A. A. R. requirements program and of the improved devices supplied by railway equipment companies.

Over 98% of the cars in freight carrying service are A.A.R. construction, and over 96% have Friction Draft Gears.

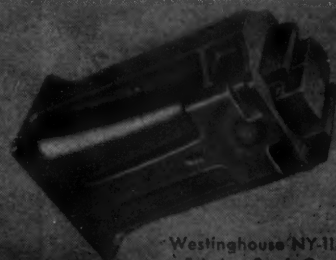
Cardwell Westinghouse Draft Gears and Friction Bolster Springs meet the greater shock-protection requirements of today's heavier traffic.



Cardwell Friction
Bolster Spring
Type A

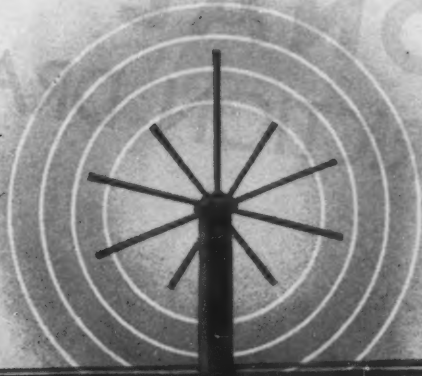


Cardwell M-25
Friction Draft Gear
Certified A. A. R.



Westinghouse NY-11-F
Friction Draft Gear
Certified A. A. R.

CARDWELL WESTINGHOUSE CO., CHICAGO
CANADIAN CARDWELL CO., LTD., MONTREAL



BENDIX RADIO ANNOUNCES

a series of reports on the

LATEST ADVANCE IN RAILROAD COMMUNICATIONS

V.H.F. RADIO

Bendix Radio*—first to offer railroads the added speed, economy and efficiency of VHF Radio equipment—will present at regular intervals in this publication a series of up-to-the-minute reports on this latest advance in railroad communications.

Based on actual tests with leading railroads, these reports will, we believe, conclusively prove that VHF (Very High Frequency) Radio answers many unsolved problems of railroad communications—and that it

provides advantages in low cost, ease of installation, flexibility and efficiency shared by no other form of communication offered in this specialized field.

Watch for these authoritative, stimulating reports—*authoritative*, because they are based on the combined observations of railroad men and the leading source of VHF Radio communications equipment... *stimulating* because they will suggest applications which can influence almost every phase of railroading.

*TRADE-MARK OF BENDIX AVIATION CORPORATION

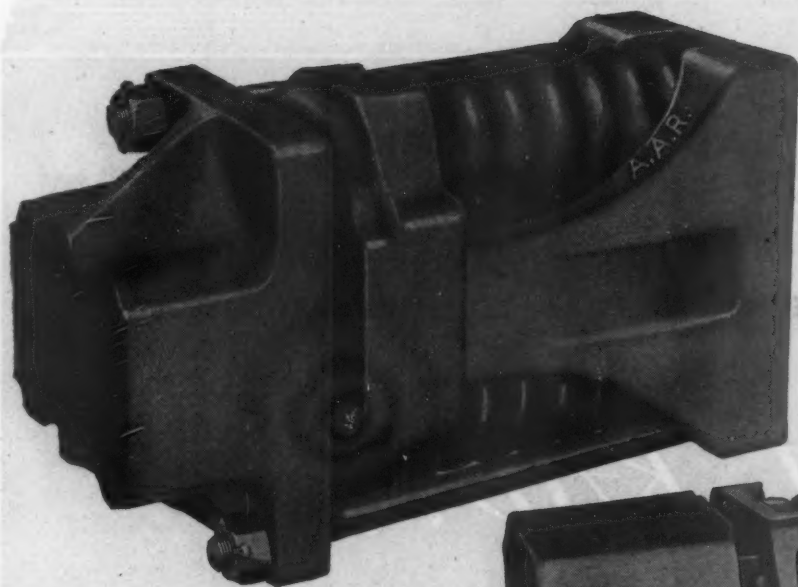
Bendix **RADIO DIVISION**

BENDIX AVIATION CORPORATION, BALTIMORE 4, MARYLAND

NATIONAL FRICTION DRAFT GEARS

Smooth Action

Maximum
Shock Absorbtion



NATIONAL M-17-A DRAFT GEAR

22 $\frac{3}{8}$ " long

A.A.R. Approved



NATIONAL M-50-B DRAFT GEAR

20 $\frac{1}{8}$ " long

A.A.R. Approved

Long Life

Low Maintenance

High Protective Capacity

NATIONAL MALLEABLE AND STEEL CASTINGS CO

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco

Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill



FOR LONG LIFE IN SEVERE SERVICE —No Other Material Can Equal ALLOY STEELS

When the going is really rough—when strains are severe and concentrated—when shocks are heavy—when wear is rapid—where fatigue, heat, cold or corrosion take their toll—you will find the answer in alloy steels.

Alloy steels are processed to last longer in severe service. They are made to be strong and tough. Their hardenability values are consistently uniform. And they resist the forces which cause failures in less sturdy materials.

The first cost of alloy steels may be

higher than that of less efficient materials—but, with few exceptions, the final cost is lower. Because alloy steels last longer, give the highest performance per dollar invested and keep equipment in service longer between shoppings.

As the world leader in the production of alloy steels, Republic has accumulated valuable experience

obtainable in no other way. A Republic metallurgist is ready to call and bring you the benefit of this experience to apply to your own problems. When may he call?

REPUBLIC STEEL CORPORATION

Alloy Steel Division • Massillon, Ohio

GENERAL OFFICES • CLEVELAND 1, OHIO

Reger Manufacturing Division • Culvert Division
Niles Steel Products Division • Steel and Tubes Division
Union Drawn Steel Division • Truscon Steel Company
Expert Department: Chrysler Bldg., New York 17, N. Y.



ALLOY STEELS

Also Carbon and Stainless Steels—Sheets



Carry a greater... **CLEANER** PAYLOAD in **PLYWOOD BOX CARS!**

There are two sure ways to make more money hauling freight.

First . . . haul more freight per car. Second . . . haul more cars per train.

Plywood helps you do this and enables you to deliver freight in better condition.

Freight cars with plywood construction are 4,000 pounds lighter than the average old-style metal car. This means that each engine can haul more cars per train, or more freight per car . . . depending on the cargo.

Plywood lining on sides and ceilings of these cars protect cargoes from filtering dust and cinders. In this way, more freight is delivered . . . cleaner . . . from trains of plywood cars.

Every type of plywood . . . the most complete assortment in the industry . . . is found under the Weldwood trademark. Not only Douglas Fir . . . in all standard and special constructions . . . but California Pine . . . fine hardwoods . . . metal-covered Weldwood (Armormply*) and Flexwood* are included.

Whether for a freight car or reefer . . . baggage car or coach . . . Pullman or de luxe club car . . . there's a Weldwood product made to build it better.

*Registered U.S. Patent Office.

WELDWOOD Plywood

Weldwood Plywood and Plywood Products are manufactured and marketed by
UNITED STATES PLYWOOD CORPORATION
New York, N. Y.

Distributing units in Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Oakland, Philadelphia, Rochester, San Francisco, Seattle. Also U.S.-Mengel Plywoods, Inc., distributing units at Atlanta, Jacksonville, Louisville, New Orleans. Send inquiries to nearest point.



Plastics and Wood Welded for Good

Waterproof Weldwood, so marked, is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood are manufactured with extended urea resins and other approved bonding agents. Back of these Weldwood Products are unmatched facilities and experience in Plywood production and fabrication. Available also are the services of qualified engineers, chemists and wood technologists.

**IT'S ALWAYS WISE
TO STANDARDIZE...**

Ride-Control **for All Freight Cars !**



American Steel Foundries recommends the Ride-Control Truck (A-3) for *all* freight cars, a recommendation that is based on more than four decades of experience in designing, developing, manufacturing, and selling freight-car trucks and parts. This truck is offered for use with coil springs of whatever travel best suits the various types of service for which freight cars are intended. Making it easier for the railroads that anticipate the future use of longer-travel springs, this truck can be arranged for use with shorter-travel springs initially. These can later be replaced by longer-travel springs if the cars are required for higher-speed service or if an A. A. R. standard spring having a still different travel should be developed.

NO SPRING PLATES • NO SPRING PLANKS



AMERICAN STEEL FOUNDRIES

CHICAGO

MINT-MARK OF

FINE CAST STEEL



• SERVING THROUGH SCIENCE

TWO NEW SCIENCES

TEAM UP

Individual air conditioning of passenger railway cars has been made possible by the evolution of new and highly efficient engine generators and engine compressor units.

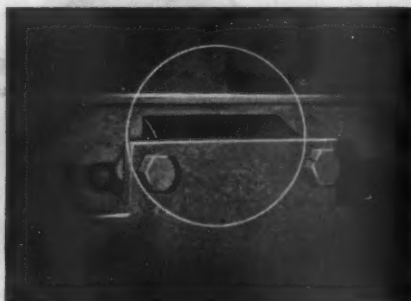
Special rubber insulators were designed by United States Rubber Company engineers to break up vibration and prevent its transmission to passengers.

Similar applications of rubber mountings are being made wherever destructive vibration and undesirable noise are encountered.

United States Rubber Company technicians are working in close cooperation with engineers, not only in the field of transportation but throughout industry. Their comprehensive knowledge of basic rubber compounding—both natural and synthetic—plus their experience in engineering rubber for specific purposes, are proving increasingly important to those preparing for the new mechanical era.



COMPACT AIR CONDITIONING UNITS, which may be easily slid from beneath the car for quick maintenance and repairs, have already been installed on a number of famous streamliners. The unit shown here, weighing 1500 lbs., is equipped with U.S. Rubber mountings.



ONE OF 16 Vibration Insulators, specifically engineered for this installation, on which the individual air conditioning unit is mounted. These are so installed as to "float" the entire unit on resilient rubber and prevent vibration from reaching the passengers.

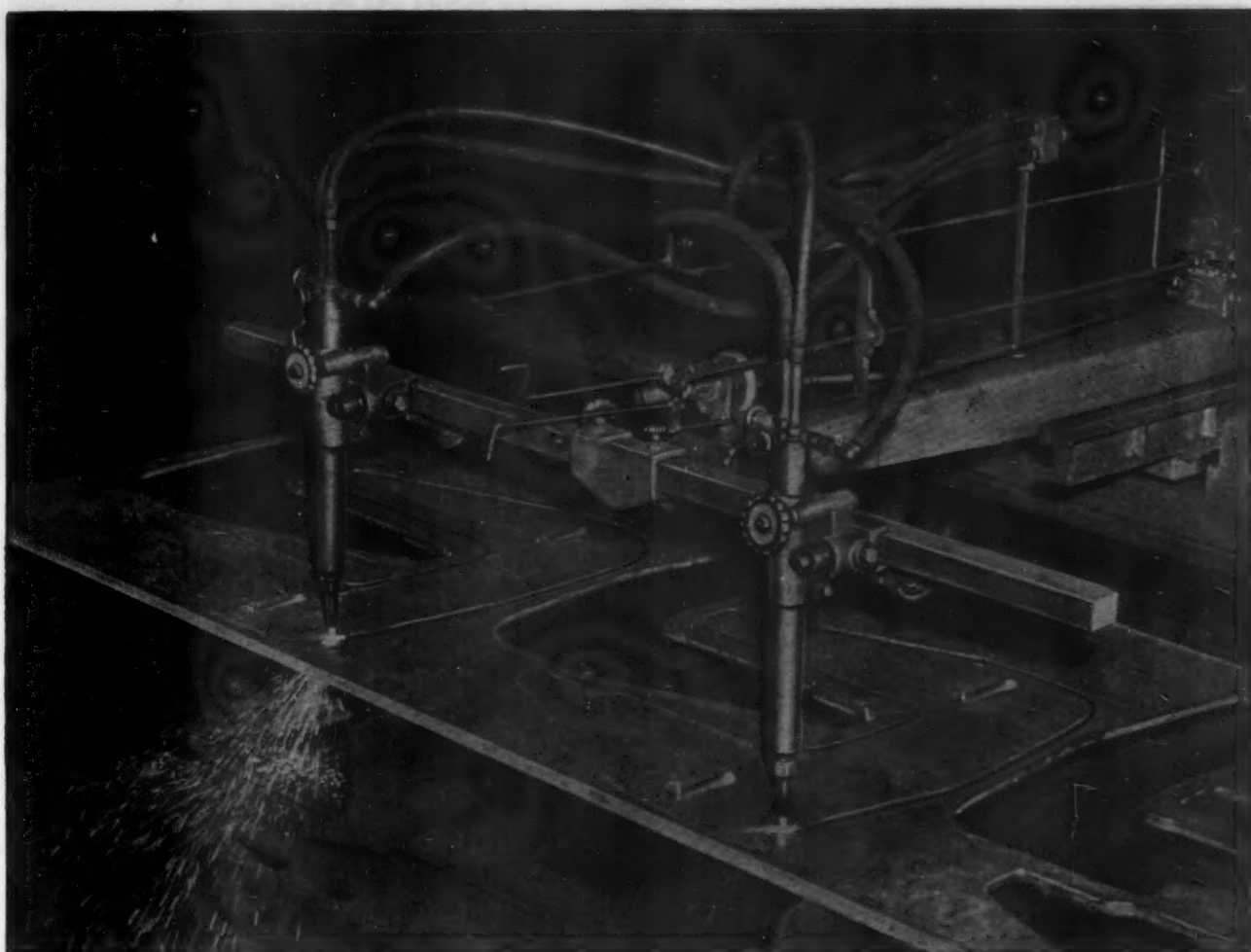


QUIETER TRAVEL—Introduction of rubber as a structural part of railway cars has done much to minimize noise, vibration and shock for rail travelers. "U.S." Engineers have pioneered in this new, important use of rubber, working in close cooperation with car designers.

Listen to the Philharmonic-Symphony program over the CBS network Sunday afternoon, 3:00 to 4:30 E.W.T. Carl Van Doren and a guest star present an interlude of historical significance.

UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE • ROCKEFELLER CENTER • NEW YORK 20, N. Y. • IN CANADA: DOMINION RUBBER CO. LTD.



MULTIPLE CUTTING

Increases the Productive Capacity of Flame-Cutting Machines

• Mounting an extra cutting blowpipe on an OXWELD shape-cutting machine is an economical way to speed the production of identical parts ... and to increase the output of cutting machines and their operators.

Parts so produced can be cut just as accurately as parts that are flame-cut singly. They are identical in every dimension, as both blowpipes move in unison and duplicate the shape of the same rigid templet. The cut edges are so clean and smooth that little or no machining is necessary before further forming or assembly operations.

Two blanks for coach truck ped-

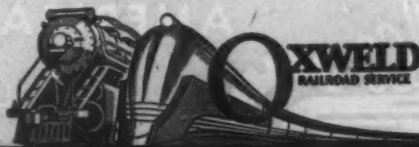
estals are being cut out of $\frac{3}{4}$ -in. steel plate in the illustration above. When shaping smaller-sized parts, it is often possible to cut three and sometimes four simultaneously, thus realizing even greater speed and productivity. Ask an Oxweld representative for more information.

THE OXWELD RAILROAD SERVICE COMPANY

Unit of Union Carbide and Carbon Corporation



Carbide and Carbon Building Chicago and New York



SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The word "Oxweld" is a registered trade-mark of Union Carbide and Carbon Corporation.

October 28, 1944

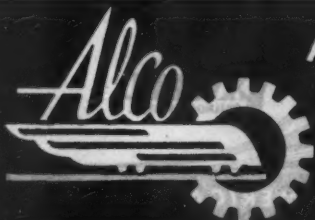
33

Easy Riding



AT ALL SPEEDS

SUPERB riding ease and passenger comfort are definite objectives of "Railway" springs. Their mechanical excellence assures lasting qualities which not only perpetuate their easy-riding, but result in thousands of extra miles of trouble-free service with minimum maintenance expense.



AMERICAN LOCOMOTIVE COMPANY

RAILWAY STEEL-SPRING DIVISION

30 CHURCH STREET

NEW YORK, N. Y.

RAILROAD TEAMWORK HELPED TURN THE TABLES ON THE AXIS!

Nine-tenths of our armed might was sped to ports by rail. To move this gigantic load, railroad teamwork: reduced the number of unserviceable locomotives from 20% to 5% • increased average daily engine mileage 20%, freight car mileage 28% • increased the average load of freight trains 37%. Every railroader may well be proud of this record.

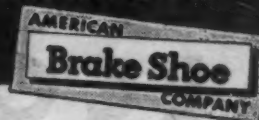
One of the vital factors contributing to it is the un-failing, long-lived service of

N • B • M
JOURNAL BEARINGS
AND ENGINE CASTINGS



NATIONAL BEARING
METALS CORPORATION

ST. LOUIS • NEW YORK



The Weight of

Specialties

Must Come Down



1938—48,500#



1928—40,300#

WEIGHT OF BODY
1906—62,600#
WITHOUT SPECIALTIES



WEIGHT OF BODY
1928—56,600#
WITHOUT SPECIALTIES

WEIGHT OF BODY
1938—33,500#
WITHOUT SPECIALTIES

WEIGHT OF BODY
SPECIALTIES: 1906—11,000#

LIGHTWEIGHT ALUMINUM WILL HELP REVERSE THE UPWARD TREND

Upgrading the luxuries provided passengers has kept car weights at a nearly constant, high level throughout the years. Specialties added to comfort-condition coaches have grown steadily in size and number. Contrariwise, car bodies have been reduced to almost one-half their weight of 1906.

Alcoa Aluminum Alloys have been important contributors to the car shell weight-reduction program. They will do the same thing for specialties.

In addition to this weight-saving ability, aluminum alloys offer high strength, sturdiness and dependability. You know

the miracles aluminum has performed in the country's war effort. Aluminum provides high electrical and heat conductivity. It is highly resistant to corrosion. Because of the many attractive, durable finishes possible with aluminum, it lends itself well to the designer who is seeking ways of achieving unusual and interesting effects.

Aluminum is available, with W.P.B. approval, for other-than-war purposes. Alcoa representatives will gladly assist in determining how and where you can use it. Write ALUMINUM COMPANY OF AMERICA, 2178 Gulf Bldg., Pittsburgh 19, Penna.

ALCOA



ALUMINUM

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered in U. S. Patent Office.

Vol. 117

October 28, 1944

No. 18

PUBLISHED EACH SATURDAY BY THE SIMMONS-BOARDMAN PUBLISHING CORPORATION, 1309 NOBLE STREET, PHILADELPHIA 23, PA., WITH EDITORIAL AND EXECUTIVE OFFICES AT 30 CHURCH STREET, NEW YORK 7, N. Y. AND 105 W. ADAMS STREET, CHICAGO 3, ILL.

WASHINGTON 4, D. C.: 1001 NATIONAL PRESS BUILDING, CLEVELAND 13: TERMINAL TOWER SEATTLE 1: 1033 HENRY BUILDING, SAN FRANCISCO 4: 300 MONTGOMERY STREET, ROOMS 805-806, LOS ANGELES 14: 530 WEST 6th STREET.

SAMUEL O. DUNN, CHAIRMAN. HENRY LEE, PRESIDENT, ROY V. WRIGHT, VICE-PRESIDENT AND SECRETARY. F. H. THOMPSON, F. C. KOCH, R. E. THAYER, H. A. MORRISON, J. G. LYNE, H. E. McCANDLESS, VICE-PRESIDENTS. J. T. DeMOTT, TREASURER.

SAMUEL O. DUNN, EDITOR, ROY V. WRIGHT, MANAGING EDITOR, JAMES G. LYNE, ASST. TO EDITOR, CHARLES LAYNG, WESTERN EDITOR, C. B. PECK, ALFRED G. OEHLE, R. L. WOODWARD, J. H. DUNN, R. A. DOSTER, H. C. WILCOX, NEAL D. HOWARD, GEORGE E. BOYD, WALTER J. TAFT, M. H. DICK, JOHN S. VREKLAND, C. MILES BURPEE, ARTHUR J. McGINNIS, J. L. STOVER, C. B. TAVENNER, H. E. MEASON, LIBRARIAN, EDITH C. STONE, EDITORIAL ASSISTANT, BETTY KETCHUM.

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PAPERS (A. B. P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.).

SUBSCRIPTIONS, INCLUDING \$2 REGULAR WEEKLY ISSUES, AND SPECIAL DAILY EDITIONS PUBLISHED FROM TIME TO TIME IN NEW YORK OR IN PLACES OTHER THAN NEW YORK, PAYABLE IN ADVANCE AND POSTAGE FREE. UNITED STATES, U. S. POSSESSIONS AND CANADA: 1 YEAR \$4.00; 2 YEARS, \$10.00; FOREIGN COUNTRIES, NOT INCLUDING DAILY EDITIONS: 1 YEAR, \$4.00; 2 YEARS, \$14.00. SINGLE COPIES, 25 CENTS EACH. H. E. McCANDLESS, CIRCULATION MANAGER, 30 CHURCH STREET, NEW YORK 7.

In This Issue

B. & B. Officers Tackle Problems 647

In one-day session dealing with war and postwar bridge and building activities, eight technical reports were presented. Abstracts of these reports appear herein.

What the Freight Customer Wants 650

An industrial traffic manager urges railroads to take the initiative in providing co-ordinated service with other forms of transportation, especially trucks.

Train Communication on the P. R. R. 652

Describing the extensive inductive type installation authorized on the Middle and Pittsburgh divisions, busiest section of the railroad, after long research and experimentation.

EDITORIALS

Who Are Our Fascists?	643
Morale Builder	644
How to Counteract Over-Specialization	644
Better Bills of Lading	645
Jobs for Veterans	646
Backing Up Associations	646

GENERAL ARTICLES

B. & B. Officers Tackle Problems	647
What the Freight Customer Wants, by H. D. Fenske	650
Train Communication on P. R. R.	652
Refrigerator Car Design Proposals	654
Much Grain Still to Be Moved	655
Pacific Coast Freight to Double	657
Hearing in Reopened Ex Parte 148	660

COMMUNICATION AND NEW BOOK 662

RAILROADS-IN-WAR NEWS 663

GENERAL NEWS 665

The Railway Age is Indexed by the Industrial Arts Index and also by the Engineering Index Service



PRINTED IN U. S. A.

Train Communication

MODERN systems of communication are used so widely that the miracles of telephone, telegraph and teletype between fixed locations have become commonplace. Because railroading requires a high degree of coordination in the activities of thousands of men at widely separated and continually changing locations, railroads fully utilize these systems, and the desire has grown to provide facilities which will also bring the men on the trains within the communication network.

For nearly three quarters of a century, The Union Switch and Signal Company has worked with the railroads in the development of signal systems and other devices for safeguarding and expediting train operation. Throughout this period the Company has been anticipating railroad needs, often starting research years in advance so that the perfected device would be ready for service when operating conditions demanded or permitted it. An important phase of this progress has been the development of cab signaling which, through electronic principles, brings into the locomotive cab a continuous indication of conditions in advance and instantly warns of hazards detected by the track circuit in one or more blocks ahead.

The "Union" Inductive Train Communication system is a typical example of this farsighted planning. Research was begun more than twenty years ago. Dozens of ideas which seemed promising had to be discarded because the trained judgment of the Company's experts considered them unequal to the ordeal of railroad service. New discoveries were made, definite requisites for train communication were formulated, and research was finally concentrated on a system of voice communication by which a modulated carrier wave could be received inductively on railroad vehicles.

The system developed on this principle was thoroughly road-tested, then installations were made to test its practicability when used by regular railroad personnel. Since then, it has been successfully used for several years in railroad operations, providing two-way voice communication between trains, between points in the same train, and between trains and wayside stations.

"Union" I. T. C. is a communication system developed exclusively for railroad use, by men who know railroad needs, and proved through years of regular railroad service.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE, PA.

NEW YORK

CHICAGO

ST. LOUIS

SAN FRANCISCO

The Week at a Glance

SHAHER'S WORDS OF WISDOM:

In a far-sighted address to the meeting of representatives of the Shippers' Advisory Boards, reported in a feature article in this issue, retiring-President Shafer presented a penetrating analysis of the chaos now existing in federal policy toward transportation and the dangers to the country's economic progress inherent therein. If Mr. Shafer's understanding of the imbecilic irrationality of the government's half-dozen mutually-incompatible policies toward transportation were made more general, the conditions he describes could not fail of removal or mitigation. Isn't it the responsibility of traffic and transportation men to give wider and more effective currency to such analyses? Other speakers at the Advisory Boards' meeting made it clear that transportation problems will not end, or even get easier, when victory in Europe comes.

WHAT KIND OF REEFER?: The fruit and vegetable shippers and other groups interested in the transportation of perishables have got together and advised the railroads what they want in the way of a refrigerator car—and their specifications are summarized in an article herein. Their desire is not to put the present vehicle aside and take on an entirely new substitute, but rather to tailor up the old reliable here and there, topping off the refurbishing by a trip to the beauty parlor.

WHAT SHIPPERS WANT: The maximum economy in transportation can be realized only if the railroads handle the long hauls and the trucks stick to the field of their superiority, i.e., short hauls and terminal movement. To achieve economical division of the job between the two principal types of land transport requires an easy transfer of lading (physically as well as by suitable rates) from one to another of them. An industrial traffic manager in an article in this issue urges that railroads take the initiative in endeavoring to bring about this economical co-ordination which, in his opinion, will prove profitable to both types of transportation, as well as to the purchasers of transportation service.

WHO ARE THE FASCISTS?: The misconception is assiduously publicized that "fascism" (the currently popular term for political tyranny) is a system promoted by "conservatives" to deprive the populace of its democratic rights. The Machiavellis who are skillfully popularizing this falsehood are, actually, themselves bent on perpetrating the very crime against society of which they dishonestly accuse innocent persons—the magician's old trick of drawing the audience's eye away from the locality where the effective manipulation is going on. Of the way in which political tyranny has actually come in Europe there are three competent and irrefutable witnesses among us, whose evidence is summarized in the leading editorial herein. Political tyranny (call it fascism, nazism, or communism—there is no difference among them but in name) has its origin

invariably in innocent-appearing government ventures into business, directly and by "planning." The characters who have invented such schemes as N. R. A. and T. V. A. for America are setting in motion domestically the same forces which have led to the bloody orgy which has ruined Europe.

IS "DEMOCRACY" WINNING?: One of the witnesses cited in the aforementioned editorial—who tells from his experience how fascism has been the natural outgrowth in Europe, *not of "conservatism," but of governmental invasion of the economy*, popularly proclaimed as "progressive"—is Friedrich Hayek, now in England but formerly a leading economist of Austria. His recent book, entitled "The Road to Serfdom," warns us that we are getting a distorted picture of the "democracy" now supposed to be triumphing in Europe, from foreign correspondents of our newspapers, many if not most of whom sympathize with left-wing absolutism; and from European "refugees" in our midst—a great many and perhaps a majority of whom are not genuine friends of political freedom, but are advocates of tyranny, whose only real objection to such regimes as those of Italy and Germany has been that persons other than themselves were in the saddle.

OPPONENTS INFECTED TOO: Nor have the elements in this country who most earnestly protest their devotion to free enterprise escaped corruption by the global epidemic of governmental "interventionism," which unless arrested must (as Europe's experience proves) lead inexorably to civil war and mass murder. In these pages, the perverse and illogical support by many business men of constantly magnified socialistic invasion of transportation has been frequently signalized; and even Tom Dewey—for all his forthright condemnation of the New Deal for the socialistic impetus it has given the economy under the machinations of such officials as Adolph Berle—has come out in favor of the St. Lawrence Seaway.

A BREAK IN THE CLOUDS?: A welcome antidote to the gloom inseparable from such painful though realistic reflections as the foregoing—comes in a news report from Kansas City quoting Vice-President Eastburn of the National Aeronautical Association as advocating the development of airports by private capital, rather than at taxpayers' expense. He predicted that, within a few years, air transportation companies will either own their terminals "or regret that they do not own them." A few more business spokesmen with the principle and foresight to reject the proffer of such a gaudy Trojan horse as is being tendered to aviation, and the republic would be safe.

UNIT BILL OF LADING: A suggestion is offered in an editorial herein of means to convert reluctant shippers to the adoption of the time-saving, error-avoiding, and claim-preventing unit bill of lading.

TRAIN PHONES ON P.R.R.— The technical and regulatory difficulties which, until recently, have delayed the application of space-radio for railroad use are briefly outlined in an address reported in the feature section of this issue, by W. R. Triem, the P.R.R.'s general superintendent of telegraph—by way of rejoinder to critics who have belittled the railroads' earnest efforts to perfect a reliable system for communication with moving trains. Mr. Triem sets forth the advantages of an induction system over space-radio, especially in its avoidance of the use of radio frequencies of which the supply is limited; and recounts the operating advantages which the P.R.R. expects to derive from its installation of an induction system of train communication on the busy Harrisburg-Pittsburgh line (210 trains per day). The service is conceived, primarily, as an aid to operation, rather than a device for the promotion of safety, which has already been carried to about as high a degree of perfection as electrical devices can be expected to achieve.

BERGE AT IT AGAIN: The Justice Department is still prosecuting its "anti-trust" action against the railroads on the hustings and in the papers. Lawyer Berge this week made a speech to a convention of the Farmers' Union in Wisconsin, in which he attempted to convince his hearers that the suit is not primarily designed to disrupt the mechanism by which the railroads have achieved so remarkable a record of wartime performance, and is not an attempt to undermine the authority of the I.C.C. Berge, doubtless, counted heavily on a lack of basic information by his audience—otherwise, he could hardly have hoped to convince them that the D. J.'s demand for the dissolution of the A.A.R. and every other co-operative arrangement the railroads possess is not an effort to undermine the efficiency of the railroads' wartime performance. These co-operative organizations, as every railroad man and every shipper well know, are the principal means by which the railroads have achieved and are maintaining their remarkable record of traffic moved. Berge doesn't want the railroads to break down. Perish the thought. He merely wants to deprive them of the means to keep going.

JOBS FOR OUR WARRIORS: There may well be some difficulties in finding places on the railroads for all returning service men, without getting mixed up with union agreements. The suggestion is made in an editorial herein that foresighted railroad officers, whose duties involve hiring employees, take advantage of the thoughtful and practical advice on this subject available to them in a recent report by the subcommittee on personnel of the A. A. R. Committee for the Study of Transportation. The further suggestion is made that the post-war volume of railroad traffic and earnings—and also the level of wages—will be principal determinants of the railroads' contribution to post-war employment; and that both employees and veterans should be advised how and why.



Starring ACCESSIBILITY

EVERYTHING on GM Diesel Switchers is easy to get at, especially the parts requiring routine inspection and servicing. The unusually compact engine provides ample headroom between top of engine and hood roof so that working parts can be inspected and replaced without removing hood. Electrical inspections, battery testing, fueling, sanding can be done thoroughly and quickly because all parts are readily accessible.



ON TO FINAL VICTORY —

★ BUY MORE WAR BONDS ★

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION

LA GRANGE, ILLINOIS, U.S.A.

RAILWAY AGE

Who Are Our Fascists?

Writers and speakers are disputing in the current national political campaign as to which side is favoring policies tending toward Communism or Fascism. Three men who are highly competent and have every reason to be impartial are available to referee this dispute. All had attained eminence in Europe as economists before they fled from Naziism in Germany and Austria, and have now lived for long periods in England and the United States; and they have recently written a half-dozen of the ablest books ever produced on political and economic problems.

These books include "Economic Germany—1870-1940" and "This Age of Fable", by Gustav Stolper; "Omnipotent Government" and "Bureaucracy", by Ludwig von Mises; and "The Road to Serfdom", by Friedrich Hayek. Nobody can read these books carefully and with an open mind without being convinced that Communism, Fascism and Naziism are virtually identical triplets; that all are the adult offspring of socialist propaganda and socialistic policies; and that any nation which begins adopting such policies will soon find that it must reverse them or they will rapidly subject it to a Communist, Nazi or Fascist dictatorship. Stolper, von Mises and Hayek witnessed at close range the development in Europe of socialistic policies into Communism, Naziism, Fascism and dictatorship; and they all give the strongest possible warning that Great Britain and the United States, in abandoning true liberalism by adopting socialistic policies, are traveling toward the same end.

True liberalism originated in the United States and Great Britain. It consists of political democracy, private property and competitive private enterprise. It accords the citizen freedom to work for or employ whom he pleases and to make all the income and acquire all the property he can as long as he does not interfere with the equal freedom of others. Socialism is government ownership and management of property; and every policy is socialistic which involves government ownership of property that would otherwise be provided and owned by private enterprise, or imposes restrictions or burdens on private property that hamper or prevent its successful management.

Socialism must inevitably result in dictatorship, because it concentrates the ownership of property, and, therefore, all power of management and employment in government; and only a dictatorship, through a huge bureaucracy, can, with any semblance of efficiency, exercise so much power. Hence, as experience in Russia, Italy and Germany shows, every increase of socialistic policies is a step toward dictatorship. Germany under the kaisers and Bismarck was the first important country in Europe in which there developed a powerful movement against liberalism and for the establishment of socialism. Bismarck began, and his successors under the last kaiser continued, adopting socialistic policies to keep the Socialist party out of power. The socialist government after World War I increased them. And thus, as Stolper, von Mises and Hayek agree, the German imperial government and the Socialist party created a national economy that it was easy for the Nazi dictatorship to take over and, without any fundamental change, use for its own purposes.

Who, then, has in this country unprecedentedly promoted socialistic policies and is promoting them now? Who for over eleven years has been spending, and is still advocating the spending, of huge amounts on government-owned "public works" such as T. V. A.? Who

Efficiency
FOR VICTORY

tried to create under N. R. A. innumerable monopolies similar to the cartels of Germany in which government here, as in Germany, would be a "partner"? Who has most strongly favored policies of taxation, not intended to raise revenue, but to hamper private enterprise by appropriating business profits and large individual incomes derived from it? All these and numerous other policies that have been adopted or advocated here have been in imitation of policies adopted by European countries that have traveled via the road of socialism to totalitarianism and dictatorship. And who is being actively supported in the present political campaign by all the advocates of Socialism and Communism?

Stolper, von Mises and Hayek show that, having witnessed at close range what has occurred in Europe, and what is now occurring elsewhere, they have no doubt as to who is promoting totalitarian Communism or Fascism in Great Britain and the United States. And neither does anybody else who uses his mind have any doubt about it.

Morale Builder

Buildings are not erected in these days unless the War Production Board is convinced that they are essential for the winning of the war—and the Board is not easily convinced! President Metzman of the New York Central, placed special emphasis on this in an address at the dedication of a new Railroad Y.M.C.A. building at East Syracuse, N. Y., on October 20. It is important, in the interests of safety and efficiency of railroad operation, that the train and enginemen have available adequate dormitory, restaurant and other physical facilities at the ends of the runs away from their homes. As Mr. Metzman pointed out, the Railroad Y.M.C.A. in these respects is a "home away from home."

But it has something else of equal or even greater importance. Its organization, non-partisan and non-sectarian, and co-operatively administered by a trained staff under the direction of representatives of men and management, functions in such a way as to promote "peace of mind and spirit" on the part of members in need of counsel or help. Those who heard Mr. Metzman will not soon forget the dramatic incident he related of aid given a railroad man who was taken ill in a Railroad Y dormitory.

The first American Railroad Y.M.C.A. was founded on the Lake Shore & Michigan Southern (now the New York Central) at Cleveland, in 1872. There are now seventeen branches on the New York Central and its employees are served by ten more where the Y is promoted jointly with other railroads or groups. The facilities at East Syracuse have long been inadequate and war conditions made it imperative to improve them.

A noteworthy development now in process on the New York Central is the co-operation of its personnel department and the Railroad Y.M.C.A. in an extensive public relations training program. The Y provides the meeting places and helps to publicize and otherwise aid

in this training, which is now being availed of by thousands of employees. It promises to be most fruitful in cultivating better relations, not only between the railroad and the general public, but within the railroad organization itself. Other types of training are similarly being promoted for the benefit of the employees, some of which may be helpful in assisting them to qualify for more responsible positions.

How to Counteract Over-Specialization

Members of the A. A. R.'s Railroad Committee for the Study of Transportation who have regularly attended its meetings have had an educational experience which could not have been gained in any other way. This has come about—whether by happy chance or penetrating foresight—in the procedure followed by the Committee, under which reports of the specialized sub-committees are presented to the whole Committee, and are formally offered to the industry only after the Committee has approved them.

The sub-committee reports, of course, are the products of departmental specialists and deal with specialized subjects. The temptation of the specialist is always to subordinate the good of the whole to that of his particular part, but in the deliberations of the Railroad Committee for the Study of Transportation, the specialists' findings cannot become a recommendation to the railroad industry until the specialists have first submitted their proposals to the critical scrutiny of their colleagues on the Committee.

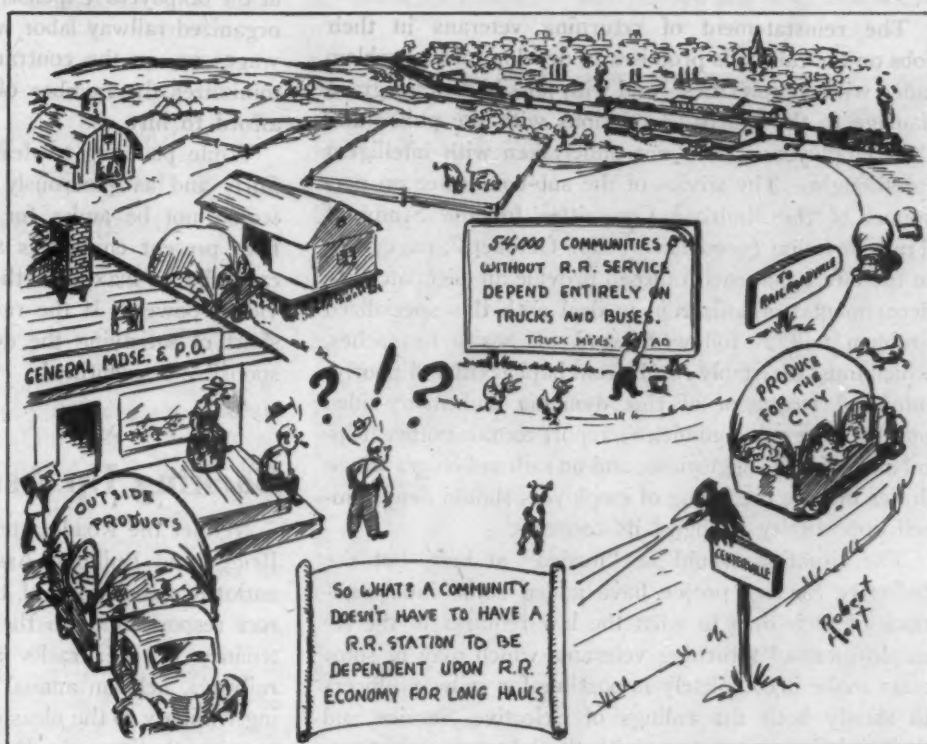
The task of securing the adoption of sub-committees' recommendations by the Railroad Committee as a whole is a two-way educational process. Not only are specialists thereby discouraged from responding to a tendency to pursue a departmental objective at the expense of the welfare of the enterprise as a whole—but, in the opposite direction, the specialists from other departments are compelled by the discussion of sub-committee reports to acquire considerable information about the problems of segments of the business with which they have been unfamiliar.

Continued now over many months, the Railroad Committee for the Study of Transportation has developed in over a hundred alert railroad officers, widely scattered as to geography and departmental interests, a comprehensive grasp of the situation of the railroad industry as a whole—and an understanding of its workings in particular—which is unique in the history of the industry. If the Committee should achieve no result beyond this by-product of its research activity, it would have well repaid its cost in money and man-hours.

The attention of the railroad industry has naturally been concentrated more on the recommendations flowing, and still to come, from this Committee than upon

the educational opportunities it has afforded its members. With no detraction from the high merit of the Committee's written product, it is certainly desirable that the effective technique it has evolved for overcoming the hindrances of overspecialization to effective performance of the industry as a whole be not overlooked. The most serious difficulties which beset the railroads lie in the field of broad policy, and the industry can do itself no greater service than to apply more widely a process by which a large number of its officers may be habituated to thinking, not alone in terms of their departmental interests, but in those of the business as a whole.

If You Believe All You Read About Transportation—3



Better Bills of Lading

The Association of American Railroads officially sanctioned and recommended the use of the unit bill of lading just over a year ago. This is a combined shipping form, consisting of a bill of lading, a shipping order, a freight waybill, a shipping order copy and a memorandum, harmonized so that all parts may be prepared at one writing. The form is one of the most efficient means for insuring against errors in the paper work covering shipments that has ever been devised. Through it, the shippers' exact instructions are given not only to the agent at the point of origin but also to all of the transportation, agency and accounting forces which have any part in the transportation, delivery and final settlement for the charges. In view of the fact that all of the necessary forms are prepared in one operation, there is no chance for errors in copying, which are all too frequent when ordinary bills of lading are used, particularly when the work has to be done by inexperienced clerical help.

The advantages of the unit bill of lading are many. It expedites the movement of the shipment because the waybill copy as received from the shipper is practically complete, requiring only a few minutes to add the necessary additional information; thus shipments are not delayed waiting for waybills. It eliminates errors in transportation from the shipper order to the waybill, which frequently results in forwarding shipments to erroneous destinations. It supplies the transportation forces of the railways with exact information as to any special

services required by the shipper (such as protection for perishables or stopping in transit). At destination it avoids disputes with respect to the quantity and kind of freight actually shipped and received, and there is available to the destination agent and through him to the consignee complete and accurate information with regard to the shipment. Also, if claims for either overcharge or shortages develop, the destination carrier has an exact copy of the bill of lading on file, which conserves much time, since many claims can be settled immediately when such copy is available at destination.

The use of the unit bill of lading is not mandatory, but practically all the railways have supplied their agents with these forms and most shippers who do not print their own bills of lading are taking advantage of them. However, this still leaves out a number of the larger shippers who print their own forms and do not use the unit bill of lading, on the supposition that it is too difficult to fit into their accounting practices. On the Chesapeake & Ohio, particularly, and also on the Southern and some other lines, by means of conferences with large shippers and studies of their needs, it has been found quite possible to adapt the unit bill of lading to their accounting needs. With the avoidance of dispensable paper work and the reduction of claims as important as they are, it seems that all railroads might urge the use of the unit form upon all shippers instead of merely recommending it. Some railways have proved the form can be adapted to any shipper's needs and other railways may take advantage of this evidence.

Jobs for Veterans

The reinstatement of returning veterans in their jobs on the railroads promises to develop into a problem laden with complexities—and with possibilities for grave damage to the railroads' relations with the public and their employees if it is not undertaken with intelligent forethought. The advice of the sub-committee on personnel of the Railroad Committee for the Study of Transportation (see *Railway Age* October 7, page 552) to the effect that each railroad provide an adequate sub-departmental organization to deal with this specialized problem will, if followed, ward off many headaches, which must inevitably result from haphazard and poorly-informed treatment of this dynamic and many-sided puzzle. The sub-committee's report contains other helpful and pointed suggestions, and no railroad officer whose duties include the hiring of employees should deny himself opportunity to digest its contents.

The situation would be "loaded" at best, but the Selective Service people have added some interpretations of their own to what the law requires in the re-employment of returning veterans, which may in some cases make it completely impossible for railway officers to satisfy both the rulings of Selective Service and their existing agreements with the labor organizations. For example, Selective Service "takes the position that qualified veterans are entitled to reinstatement even though it necessitates discharge of a non-veteran of greater seniority." The unlikelihood of organized labor's peacefully agreeing to such a ruling was conclusively indicated in a statement by D. B. Robertson (reported in *Railway Age* of October 11, page 591).

What is railroad management going to do, thus caught in between an irresistible force and an immovable body? Now is the time to locate an exit before the threatened conflict becomes actual. If Selective Service rulings go beyond the intent of the law, doubtless Congress would, on request, be glad to oblige the organized brothers and/or the veterans, by enacting a clarifying amendment. If it cannot satisfy both groups, then Congress and not the railroads should have to do the explaining to the party whose interests are subordinated.

Railroad managements are undoubtedly unanimous in their desires, not only to re-employ all veterans with railroad seniority who seek reinstatement, but also to hire promising young men from the Military Railway Service who have never seen service on American railroads. At the same time, the total number of employees for which the railroads can find places is a matter largely beyond the control of railroad managements. Total possible employment will depend largely on the total post-war industrial production in the country, and, hence, upon whether or not railroad employees, service men, and other citizens vote on November 7 to oust from office incompetent public servants whose purpose is to wreck private enterprise. It will depend upon the degree to which government in the post-war period engages in or refrains from extending waterways and

super-highways to compete further with the railroads at the taxpayers' expense. It will depend upon whether organized railway labor will be content with reasonable wages or, on the contrary, insist upon a scale which minimizes the number of employees the railroads can afford to hire.

While planning to deal with the returning veterans fairly and as generously as their resources permit, it would not be amiss for the railways also to inform both present employees and veterans what steps they can take to maximize the railway's post-war job-providing power. If the railways' employing power falls short of satisfying the demand, let those who are responsible be identified.

Backing Up Associations

Neither the Roadmasters' nor the American Railway Bridge and Building Association, the two outstanding national associations of those railway officers with direct responsibility in the field for the adequate maintenance of the tracks and other structures of the railways, held an annual convention this year. Yielding willingly to the pleas of the O. D. T. to forego large group gatherings, the Roadmasters replaced their regular three-day annual meeting with a one-day meeting of the executive committee on September 20, and the Bridge and Building Association replaced its regular three-day session with a similar one-day executive meeting on October 18, reported in this issue.

The attitude of both the O. D. T. and the A. A. R. has been, nevertheless, that the work of such associations as these must not be jeopardized, but must go forward through regular committee work. That this be done under the difficulties occasioned by war conditions presents a challenge to the officers and members of associations. More than that, it concerns higher engineering and maintenance officers and railway managements in their desire to have continued the valuable service these associations render.

That chief engineering and maintenance officers interest themselves more diligently in the work of the Roadmasters' and Bridge and Building Associations is of importance. Whether they realize it or not, their roads, and they individually, have much to gain by healthy, aggressive, hard-working associations of both roadmasters and bridge and building men, with good representation in these associations among the track and bridge and building forces of their respective roads. That some of them do not seem to realize this is indicated by the fact that of the 126 Class I railways of the country, only 66 are represented by membership in the Roadmasters' Association and only 68 by membership in the Bridge and Building Association. Furthermore, a check of the membership of each association shows a widely disproportionate representation of various roads, with little or none on some of the largest roads of the country.

B. & B. Officers Tackle Problems

One-day session considers many phases of war and post-war activities and sets up a constructive program

ON October 18, at the Hotel Stevens, Chicago, the executive committee of the American Railway Bridge and Building Association crowded into an intensive one-day session most of the business that would ordinarily be spread over its usual three-day annual meeting—given up this year in co-operation with the railroads and the Office of Defense Transportation to lighten the load of war-time rail travel. While the meeting was limited in duration and scope, and was devoid of all formalities, addresses and special features, there was no lack of interest and enthusiasm among those present, who numbered more than 60, largely from the Chicago area, who were challenged by the many problems that confront them, both as an association and as individuals in their daily responsibilities of maintaining the bridges, buildings and water service facilities of the railways adequate to today's heavy traffic.

President Varker Looks Ahead

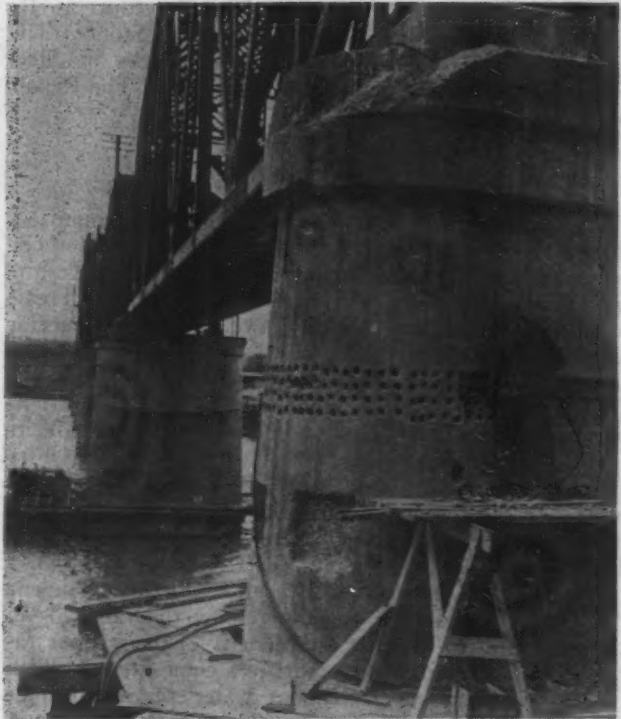
Presided over by J. L. Varker, bridge and building supervisor, Delaware & Hudson, the executive committee considered the technical reports prepared by committees during the year, and, except for two interruptions, continued this technical aspect of its program with a round-table discussion of special subjects and problems of immediate interest to bridge and building men, which was conducted by A. E. Bechtelheimer, a past president of the association and bridge engineer of the Chicago & North Western. The two interruptions to this intensive consideration of technical subjects were a brief address by the president at the opening session, and a fitting period of tribute to the late Elmer T. Howson, a past president of the association, and, until his death on September 1, vice-president and western editor of *Railway Age*.

President Varker spoke in part as follows:

"In the year ahead, in the face of a continuing shortage of labor and a scarcity of materials and equipment, we will, no doubt, continue to be faced with many difficult situations. However, bridge and building men, with the aid of their friends in the bridge and building supply industry, will continue to solve their problems as they are doing today. It is a challenge—our association must carry on aggressively and find a solution to these problems. Never was there a greater need for our association than today—never have we had a greater opportunity for service to the railroads and to our country. The things we have accomplished in the past are merely a prologue to the greater responsibilities that lie ahead. The railways—the country—are looking to us to play our part in a continuation of the war-time railway service that is amazing the nation. We cannot fail.

"In looking beyond the clouds of the present war years, we face problems and opportunities beyond anything in the past—problems in building back into our bridges, buildings and other structures the toll that is being exacted from them during the war years, to modernize these structures in keeping with the post-war developments in passenger and freight service, which will demand higher

NOTE—Reports will be published in full in the November "Railway Engineering & Maintenance."



Many Types of Bridge and Building Work Cannot Await the End of the War

speeds, more intensive train schedules, greater comfort—all, with increased safety and economy. These are our obligations—these are our opportunities."

In the pause of tribute to Mr. Howson, who had been a member and guiding influence in the association since 1914, Armstrong Chinn, general manager of the Alton, and a past president of the association, eulogized Mr. Howson for his character, his ability, his untiring energy and his contribution to the work of many railway associations, and then singled out for special attention the stimulation which he offered so freely to young men starting out in new endeavors. Mr. Chinn spoke in part as follows:

"You have, no doubt, already heard and read about his tireless energy, his almost insatiable desire to be doing something constructive all the time. How, almost single-handed, he kept this association and others like it alive during the depression years, while at the same time carrying on his many other exacting duties. How, with never-ending zeal, he fought for the interests of the railroads and for the men who run them. Anyone who was around Elmer very long soon learned of his love for perfection. That love was a great stimulant to whatever was best in those associated with him. He made you want to aim higher and gave you the desire and confidence to do so. Many men, particularly in the railway field, are holding better and more responsible positions today because of the inspiration derived from their contacts with Elmer Howson.

Speaking too, from a long and intimate association with Mr. Howson in both railroad and association work, Clarence R. Knowles, superintendent of water service retired, Illinois Central, and a past president of the association, praised him as a man of boundless energy and devotion, especially in the interest of various railway organizations.

Eight technical reports were submitted to the meeting, abstracts of which are included in this article. During the roundtable discussion consideration was given to the following subjects: Failures of Culvert Pipe; Raising Bridges in Ballasting Programs; The Procedure to Be Followed in Replacing Failed Bridge Seat Stones; The Functions of Hook Bolts on Timber Decks of Steel Spans; The Pointing of Stone Masonry; and The Repair of Masonry by Grouting.

Study Program Selected

Eight subjects were selected for study by committees during the ensuing year, as follows: Economical Methods for the Maintenance of Impounding Reservoirs; Restoring Old Masonry by Grouting, Including Surface Treatment Where Necessary; New Developments in Interior Painting; The Maintenance of Wood Bridges and Trestles; The Influence of Maintenance Practices on the Development of Modern Enginehouses; The Use of Highway Trucks in Bridge and Building Work; The Merits of Various Types of Piles; and The Elimination of Fire Hazards and the Maintenance of Fire Protective Equipment. In the absence of a regular convention, there was no election of officers, and there was no exhibit of the Bridges and Building Supply Men's Association.

Increasing Capacity of Water Facilities—The entire range of problems encountered by the railroads in their attempts to increase the capacity of their water facilities was covered in the report of a committee of which Guy E. Martin, superintendent water service, Illinois Central, was chairman. These problems have come about, said the committee, because of the large increase that has occurred in railway traffic since the beginning of the war. Many terminals, it said, are handling 30 to 40 per cent more locomotives now than were handled prior to 1941, and tender capacities have increased as much as 100 per cent, or auxiliary tenders have been brought into use.

The committee considered separately the various sources of water and possible methods of augmenting them. The sources considered included municipal water systems, wells and reservoirs. Next, the committee discussed the need for increasing the water storage capacity that has arisen at many locations, and gave consideration to the various measures that may be employed to increase the delivery of water in cases where this has become necessary because of the larger engine tenders in use or for other reasons. This discussion included reference to certain recent improvements in the equipment for picking up water from track pans.

Other matters considered in this report included methods of augmenting the capacity of water-treating plants, and the advantages of installing automatic motor-driven pumping equipment to replace steam-driven pumps. The findings of the committee were summarized in a set of eight conclusions.

Possibilities in Designs and Materials—"In view of the severe war-time restrictions that have been imposed upon the many critical materials that are so closely associated with building construction, there are many evidences that the post-war period will see an almost unparalleled wave of railway building construction and rehabilitation." This was the opening sentence of a report on new possibilities in building designs and materials, which was prepared by a committee of which W. A. Huckstep, general building supervisor, Missouri Pacific, was chairman.

First discussing in a general way the post-war plans of the railroads, of which, it said, building construction and modernization comprise no small part, the committee

turned its attention to the new materials and developments in materials that are likely to play a part in post-war construction activities. These, it said, include aluminum, plastics, plywood, and many new developments in processing, treating and fabricating wood. Recent advances in lighting and air-conditioning, and in the use of substitute materials, were also discussed.

Part of this report was devoted to a discussion of the opportunities for modernization offered by railway buildings, and in this section the committee set forth certain principles of design, arrangement and material-utilization that it felt should be followed in the modernization or construction of passenger stations. Emphasizing the importance of enginehouses and shop buildings, the committee called attention to certain developments, including the increasing use of Diesel-electric locomotives, that have brought about a need for the design of structures "adapted to more efficient utilization and operation." This phase of the report included a discussion of the various types of materials and fixtures that are considered appropriate for use in the construction of enginehouses and shop buildings.

Finally, after a brief discussion of the feasibility of employing prefabricated buildings for small roadway structures, such as section and tool houses, the committee closed its report with this sentence:

"Now is the time for the railroads to start planning not only for new stations and other types of buildings where public business is transacted, but also for the modernization and rehabilitation of existing buildings, in order that they will be able to meet the certain intensive competition from other forms of public transportation in the post-war era."

Year's Developments in Labor—While some changes have occurred during the last year in the labor situation in the bridge and building departments of the railways, these have been more in degree than in character, according to a committee reporting on the Year's Developments in Labor, of which G. E. Boyd, associate editor, *Railway Age*, was chairman. In general, said the committee, the situation became worse as the season advanced, primarily because more men were needed during the working season, although several roads reported a perceptible improvement since the first of the year.

A large part of this committee's report was based on the returns received to a questionnaire that was sent to a selected number of railways. From the replies received the committee was able to present a detailed analysis of the situation throughout the country as a whole, the subjects treated including the extent of the labor shortage among the bridge and building forces, the effect on the labor situation of the differential in wage rates between those on the railroads and in other industries, present practices regarding the boarding and housing of bridge and building employees, and methods and expedients in use for recruiting new employees and otherwise augmenting the supply of bridge and building labor. Expressing the opinion that, under present conditions, there had been a marked reduction in the over-all effectiveness of bridge and building labor, the committee went on to discuss the reasons behind this development. Finally, pointing out that the report discussed the labor situation as it existed prior to July 1, the committee concluded its report with a brief outline of the Priority Referral Plan of the War Manpower Commission, which went into effect on that date.

Fire-Resistant Timber—Recent developments in the treatment of timber to increase its fire-resistance was the subject of a report prepared by a committee of which J. F. Seiler, principal engineer, Service Bureau, American Wood-Preservers' Association, was chairman. For the

purpose of its investigation, this committee grouped the various types of railway buildings into classifications according to the extent of their effect, if damaged by fire, on the ability of the railroads to render transportation service. These classifications were then listed and the more important considerations involved in rendering the various structures in them resistant to fire were discussed briefly.

The committee did not consider it appropriate at this time to submit a specification for the fire-retardant treatment of timber, but confined its report to a discussion of what, in its judgment, are the essential considerations to be kept in mind in the selection of a suitable specification. Discussing the requirements pertaining to treating practice and the acceptance of treated material, the committee said that these provide for (a) performance tests only; or (b) definite chemical formulations, together with penetration and retention requirements; or (c) both of these; but it went on to express the opinion that requirement (a) is to be preferred, regardless of what chemicals may be employed or the extent of their penetration or retention in the wood.

Discuss Underwriters' Proposal

Next, the committee discussed the proposal of the Underwriters' Laboratories to furnish an "Underwriters' Certificate" for each form of fire-resistant treatment that conforms to certain specification requirements. The committee also discussed the considerations involved in selecting a form of treatment embodying resistance to both decay and fire, the results of tests made to determine the manner and extent to which the strength of wood is influenced by salt injections, and the fact that wood possesses some of the very properties needed most urgently for maximum protection in case of fire. The report concluded:

"In the final analysis, the reduction of fire hazard, whether as a matter of new construction or maintenance, should be achieved at a price consistent with the exigencies of the situation. Whatever that may be, the principle of obtaining the maximum protection at the lowest cost, under the specific existing conditions, should prevail. In line with that principle, each material and process or method must stand on its own merits in the studies of each specific situation."

Bridge Inspection—The necessity for placing increased emphasis on adequate bridge inspection in the light of current restricted maintenance was the gist of a report on bridge inspection, which was presented by a committee headed by H. M. Harlow, assistant general supervisor of bridges and buildings, Chesapeake & Ohio. Pointing out that much maintenance work that is normally done as a matter of routine must now, of necessity, be postponed, the committee said that inspectors must decide which defects found in structures require immediate repair and which can be held over and how long. "Superficial and inaccurate inspections," it said, "can cause the waste of both manpower and materials, which might be better expended in other structures. They might also cause interference with efficient operation by reason of failure to detect defects in time for correction."

This report was devoted in large part to an analysis of the answers received to a questionnaire that was sent to a number of Class I railroads for the purpose of determining how the various bridge maintenance and inspection problems brought about by war-time conditions are being dealt with. Some of the matters discussed included the manner in which maintenance practices are affected by restrictions on materials, and changes in these restrictions; the expedients in bridge maintenance adopted

by the various roads to cope with shortages in materials and manpower; painting problems arising out of the present situation and the ways in which they are being solved; pertinent considerations regarding present repairs to masonry structures and to pile or frame trestles; the extent to which the roads have increased the intervals between bridge inspections; and a discussion of the things that inspectors and their supervisors should keep in mind when making inspections under present conditions.

Keeping Work Equipment in Service—During times of peace the economic justification for the use of work equipment depends largely on the extent to which it can be kept in service, but war-time factors, such as the labor shortage, have introduced new considerations of at least equal importance with the economic factor, with the result that it is now more important than ever that work equipment be utilized to the fullest possible extent. This was the first point to be made in a report on Keeping Work Equipment in Service, prepared by a committee of which John E. Bird, assistant supervisor bridges and buildings, New York Central, was chairman. The committee next discussed briefly the part played by supervisory officers in obtaining the maximum utilization of work equipment, pointing out that it is the responsibility of such officers to set up definite, comprehensive schedules to be followed in assigning the equipment, and to insist on adherence to these schedules.

Next, the committee treated in detail the need for placing work equipment in the hands of competent, well-trained operators, stating that 50 per cent of the failures that occur in work equipment are due to faulty operation or to failure to take care of running repairs properly. Factors to be considered in selecting and training machine operators were then discussed, after which the committee took up the question of keeping work equipment in a proper state of maintenance and repair. It presented the following conclusion: "Keeping work equipment in service requires the careful scheduling of both work and equipment; good operation; adequate field maintenance; co-operation between operators and supervisory officers; and maximum use of all seasonal equipment."

Welding in Bridge and Building Work—"The railroads are still confronted with the necessity of making their bridges, buildings and water service facilities outlast the war. Since steel and iron are among our most strategic war materials and must be conserved wherever possible, it is of paramount importance to save every pound of these metals that can be saved. Welding offers a particularly good opportunity to save both materials and labor." These were the opening sentences in a report on Welding in Bridge, Building and Water Service that was prepared by a committee headed by C. S. Crites, division engineer, Baltimore & Ohio.

Following a general discussion of certain considerations involved in the application of welding to the repairing of metal structures, the committee took up separately the use of welding in each of the several types of railroad structures, including bridges, buildings, turntables, coaling stations, ash pits and water service facilities. In each case it gave consideration, among other things, to the application, limitations and advantages of welding, especially in making repairs and renewals, and elucidated certain principles to be observed in the use of the welding technique. The following conclusions were appended to the report:

"Welding equipment and rods are perfected to a point where, with proper design and control, welding can be used with assurance in bridge, building and water service work on the railroads. Welding saves time, labor and material. In order that welding practices may be uniform within good and safe bounds, engineers

should establish a code covering all phases of welding work for constructing, reconstructing, reinforcing and repairing steel members of bridges, buildings and water service structures. Until such a code is adopted, it is best to follow the guidance of well-established producers of welding supplies and appliances whenever important members of a structure are to be welded together."

Post-War Values of War-Time Practices—The post-war values of war-time practices in bridge, building and water service activities were discussed in a report prepared by a committee of which E. H. Barnhart, division engineer, Baltimore & Ohio, was chairman. In this report the committee first reviewed the different ways in which the work of the bridge, building and water service forces was affected by the onset of war-time conditions, especially the shortage of materials and manpower. Then the various expedients that these forces have had to adopt to overcome the difficulties confronting them were de-

scribed, and a contrast was drawn between the peacetime and war-time practices.

The committee then turned to a discussion of the lessons that have been taught by war-time experiences. These were summarized in the report as follows:

"War has taught railway bridge and building officers many things—to plan carefully their material needs, with no excess permitted on requisitions; to work with an exceedingly low material inventory and to search all possible sources on the line for the recovery of good second-hand materials; to allow no waste and to have all unused material, both new and second-hand, picked up promptly and retained for other uses; to work closely with the stores departments; to use power tools extensively, and to schedule and preserve them in good operating condition; to release cars promptly; to exercise ingenuity in substituting one material for another that may not be available; and to take more interest in the welfare of their employees, and to train them and provide them with closer supervision."

What the Freight Customer Wants

WHAT does the user of transportation want from the carriers in the post-war era? An excess of transport facilities, with intensive competition so as to be able to whittle-down the rates? An integrated transport system with little or no competition between the various types of transport service? The answer is neither.

The Board of Investigation and Research in its preliminary report to the President and Congress made on May 16, 1944, on the "Relative Economy and Fitness of the Carriers" has given the answer from a broad point of view when it said:

An adequate national transportation system which will make available to the public the fullest economic use of each type of service can be developed and maintained only under the following basic conditions:

1. Provision of opportunity and encouragement for each agency of transportation to operate with the greatest possible economy and efficiency in the field where it can best serve the public.
2. Establishment of rates and charges which are related to the costs of providing the services rendered by each type of carrier agency.

There are numerous schools of thought on how to attain this objective. Within the last 12 years we have had the National Transportation Committee, Transportation Conference of 1933-34, the Federal Coordinator of Transportation, the Committee of Three, the Committee of Six, the National Resources Planning Board, and others—all expounding weighty theories of how our transport problems should be solved. Basically, these solutions have dealt with the problems from the viewpoint of the carriers, presumably with the expectation that shippers would adjust themselves to whatever arbitrary scheme of transport control was adopted. Perhaps if the approach were made by seeking to fit the transportation system to the requirements or desires of the users it would get closer to the real solution. In any event, the user will seek out the means of transport which will provide him with the greatest possible economy and efficiency. The transport industry's problem is to set up conditions whereby this is made possible, not by an excess of facilities with consequent inadequate profit, but by a system which will enable the carriers to make a good profit out of the service with no more than ade-

The need is for co-operation between truckers and railroads to give advantage of rail line-haul to truckload quantities

By H. D. Fenske

*Manager, Transportation Department,
Great Lakes Steel Corporation*

quate facilities at rates which reflect the economies of each type of physical handling.

The railroad is without doubt the most efficient and economical carrier of freight between terminals. Its fixed method of physical handling, however, requires volume movement to realize this advantage. Before the advent of the motor truck and improved highways the railroad was able to recover most of its terminal costs from relatively short-haul traffic. It was then able to use its low cost of line-haul transport to create increased volume by extending the area over which interchange of goods could take place by freight rates in which the terminal cost represented only a fraction of the total rate compared to that carried in the short-haul rates. When the trucks began to eat into the short-haul business of the railroads, the latter began to raise rates on traffic not subject to this competition. On long-haul business this created a vicious circle because higher rates tended to reduce volume which was essential to maintain low operating costs and this created a necessity for higher rates on traffic still held. Any reduction in rates to meet truck competition cut into the revenue necessary to pay terminal expenses with the well-known adverse financial result. The wartime freight has artificially restored profitable long-haul business to the rails but it is a temporary respite and the future bodes ill if competition between types of carriers is allowed to run rampant.

Manifestly, if ways and means can be developed whereby the railroad's advantage of low-cost line-haul

transport can be put to use for substantially all the freight moving between terminals and the highways used *only* in the terminals or between terminals where no rails exist, the problem is solved. To do this obviously is going to require cooperation and coordination of rail and highway transport agencies. To expect users to revert back to methods of rail transport which existed before the motor truck service became available is unthinkable. The flexibility of loading a unit of transport smaller than a box car at a shipper's place of business and having it speedily transported to a customer intact, without handling the articles in the shipment enroute, is the feature of truck service which *must* somehow be provided under any form of coordinated service. It is immaterial to the user how this unit is actually moved so long as this feature is preserved. If the railroad can find a way to move the units between terminals for less cost than the truck operator can transport them over the highways, the way is opened for the railroad to regain the revenue lost to the highways.

The Truckers as an "Equal Party"

To do this points to the necessity for the truck operator to place the units on rail equipment ready to move between terminals free of any rail terminal service and the railroad making contractual charges for the service to the truck operators on the basis of the relations between carriers rather than as shipper-carrier. It presupposes that the railroads will give up their prejudice against recognizing the truck companies as carriers and deal with them as an equal party in the scheme of transport service. It has possibilities of developing to the point where shippers will deal with the railroad agency on carload shipments where the shipper loads and unloads the car and with the truck operator for all shipments handled by truck terminal service whether the line-haul service is by rail or highway. These truck operators may, as now, be rail subsidiaries, but if the rail lines can regain the *line-haulage* on all or substantially all the business now moving over the highways, is it not worthy of consideration even though it means the initial contract of carriage is with a truck line which is not under direct railroad control?

One analyst of the problem has concluded that some two hundred million tons of freight annually is transported by truck over the highways which is essentially *carload* business were it not for the desirable truck unit. If this volume can be put back on the rails for line haulage to be handled at a profit, it may be the means of keeping the rails in a healthy financial state even though in doing so they share the freight charges paid by the shipper with the truck operators.

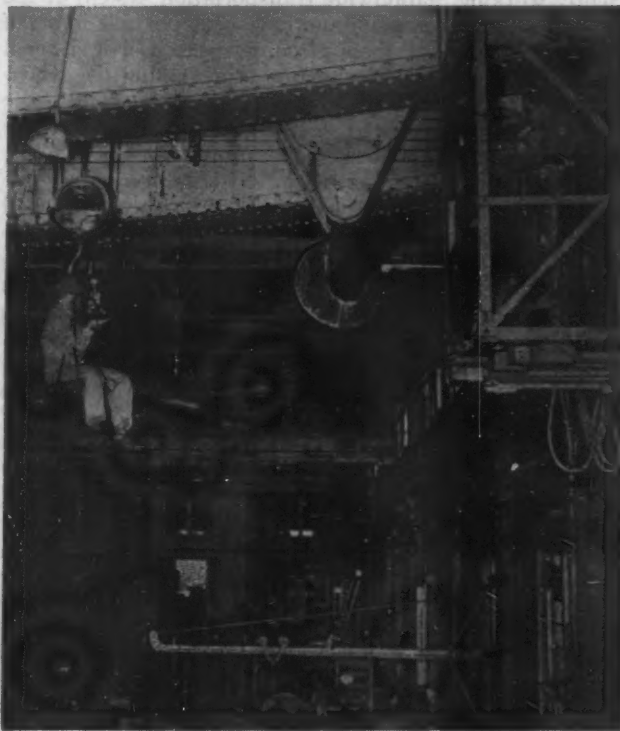
The real problem in this suggested method of coordinating the use of our transport facilities is the type of unit which will make it possible. For many years we have had various types of containers intended to provide unit loads less than box cars. All of these required special rail equipment, special handling equipment and/or special truck equipment. This reduced the flexibility of use and after a short burst of enthusiastic general use, continued in use only for certain special purposes. The need, therefore, is a type of container unit which can be transported in conventional box cars on rails (there will be plenty of them idle otherwise—post war) and can also be easily moved by most truck equipment. It cannot be expected that such equipment will handle all freight because there will always be certain kinds of freight which do not lend themselves to uniformity. The objective should be to provide a shipping unit for the

bulk of the freight which moves which will be loaded by the shipper and unloaded by the consignee and of a size and design which will make it possible to handle the loaded unit quickly, truck to car or vice versa. The container units should be freely interchanged with per diem or other time charges for their use while in the hands of the carrier, with similar charges to shippers or consignees who want to load or unload the contents at their convenience instead of unloading while on the trucking unit.

To keep freight liquid in movement from the time it leaves the shipper until it reaches the consignee is the acme of transportation service desired. The railroad accomplishes this for carload quantities, the truck for truckload quantities, but the need is to give the user the benefit of the latter and still preserve the haulage for the railroads so as to maintain volume movement necessary for profitable operation of its huge plant. If it can be done, our highways will be freed of most of the freight burden so that more pleasant passenger car travel can be enjoyed. On the other hand, there are few, if any, railroads, who use their rail highways to capacity and they could easily arrange much more frequent schedules of movement over their lines, especially if no terminal switching service to break-up trains at terminals is required.

So, perhaps if the brains in the railroad systems can make themselves come to the point where they are willing to share with the trucking industry the revenue in the haulage business for movements where truck terminal service is indicated by user desire, a transportation system will evolve which railroads, trucks, and users will agree is the best to be attained.

* * *



Recording a Broadcast the Hard Way

U. P. Photographer W. A. Coons dangles from a crane hook to shoot a picture of Reporter Ray Clark, in a traveling crane, 40 ft. above the floor of the railroad machine shop, as the latter goes into his "on-the-scene" interview with Crane Operator George Bohrer, during a recent broadcast of "Your America," Union Pacific's weekly program over the Mutual Network.

Train Communication on P. R. R.

Extensive installation authorized after long and painstaking research and experimentation

UNUSUAL interest in train communication was evidenced by the large attendance at the meeting of the New York Railroad Club on October 19. The program included addresses by W. R. Triem, general superintendent of telegraph, Pennsylvania Railroad, and Dr. L. O. Grondahl, director of research and engineering, Union Switch & Signal Company.

Mr. Triem traced the development of train communication on the Pennsylvania Railroad, which extended over a long period and culminated recently in the authorization of its installation on the Middle and Pittsburgh divisions, the busiest section of the Pennsylvania.

Doctor Grondahl traced the development of the Union inductive train communication system and described in more or less technical detail the application on the Pennsylvania. Extracts of Mr. Triem's paper follow; Doctor Grondahl's address will be reported in next week's issue of the *Railway Age*.

Radio No Panacea for Accidents

The war-time performance of the railroads of the United States has been little less than a miracle. No industry has made a more vitally essential contribution to the war effort. Had the railroad plant as a whole not been a highly developed, thoroughly coordinated, efficiently working, nationwide transportation system at the outset of the war, it would not have been possible to make this record. Under these circumstances it would seem that no one, particularly anyone representing a governmental agency, would go out of his way to belittle the railroad industry and to discourage and distract those who are responsible for its operation. Yet such is the fact. In recent months criticism has been voiced in some quarters that certain railroad practices have retarded progress. Some radio commentators and newspaper columnists too have seen fit to add to the confusion by attacking the railroads because of certain unfortunate train accidents which they erroneously believe might have been prevented if railroad trains were equipped with radio.

To what extent, you may ask, are the railroads taking advantage of technological and scientific discoveries to improve their efficiency and safeguard their operations? The Pennsylvania Railroad today is employing practically every known device and method to promote efficiency and safety of railroad operations. There is no detail of railroad plant or operation that does not show the effect of the constant research. The current installation of a complete inductive train communication system on the Pennsylvania between Harrisburg and Pittsburgh is evidence of this policy and is also a decisive answer to certain critics who would have the public believe that railroads have been remiss and backward in not adopting some method of communication on and between trains and wayside offices.

Every since electron tubes were invented efforts have been made to apply the principles of electronics to train communication. Numerous devices have been tried out on approximately a dozen different railroads. Some of these devices were adaptations of space radio, others

utilized high frequency currents induced in track rails and wayside wires.

Space Radio Telephony.—The conclusions to be drawn from the facts developed in the hearings before the Federal Communications Commission are that space-radio is not now in use on railroads because no completely satisfactory system has heretofore been available for the frequencies which it appeared would likely be assigned for such use. Space-radio might have been successfully adopted some 10 or 12 years ago if the radio frequencies most suitable then for the purpose could have been permanently assigned to the railroads. But there was uncertainty as to the assignment of radio frequencies which then as now were insufficient to meet the demand for their use in the public interest.

In the meantime railroads and manufacturers have been exploring the possibilities of use of ultra high radio frequencies, which their judgment indicates are the only radio frequencies likely to be available to them. The F. C. C. hearings showed that equipment was available for use of these high frequencies but that the range of communication became progressively shorter as higher frequencies were used. For this reason space-radio is unsuitable for certain railroad purposes without the employment of radio-relay systems, about which there is a lot yet to learn. Under the circumstances is it any wonder space-radio is not being used today on railroad trains?

Inductive Communication System.—The conclusions that can be drawn from the F. C. C. hearings seem to me to be that the inductive train communication system has now been developed to the state where it should meet practically all railroad requirements. It has been in service for a number of years in yard service and has satisfactorily provided one-way communication from yard master or conductor to yard engine under widely varying conditions. There are today twelve yards on six different railroads where the one-way inductive yard engine telephone is in regular service.

In road service the inductive train communication system has been in trial and experimental service on the Bessemer & Lake Erie, the Pennsylvania and the Kansas City Southern, and it is safe to say it is now so well developed as to warrant its adoption as an established and effective method of communication.

Train communication is in daily service on the Pennsylvania Railroad at a number of locations. It is in regular road service on the Belvidere branch between Trenton and Phillipsburg, and in yard service at eight locations. One-way yard engine telephone systems are employed to direct movements of yard engines in two different yards at Enola, near Harrisburg; two different yards at Altoona; one yard at Pitcairn, near Pittsburgh; one yard at Columbus, Ohio, and one yard at Indianapolis. A two-way train telephone system is in service in the freight station-produce terminal-industrial switching district in the heart of Pittsburgh. All of these systems employ the inductive principle and are not to be confused with space-radio.

Space-radio equipment however is used by the Pennsylvania today in the commercial radio-telephone tugboat

dispatching system installed in 1941 on 24 tugboats in the harbor here at New York. The earliest record of experimentation with radio on the Pennsylvania Railroad is on tugboats in New York harbor in 1920, but the results were not sufficiently encouraging to warrant adoption. From that date down to the present, interest has not lagged in this general subject, and numerous installations and tests of many different appliances were made to develop a suitable communications system.

About seven years ago, in our constant search for improvements in signaling and communication, after conferring informally with representatives of the Federal Communications Commission, we became convinced that the number of radio frequencies available were not sufficient to meet demands for their use in the public interest, and that it would be in the public interest, and also in the Pennsylvania Railroad's interest, to avoid dependence, if possible, upon the use of radio frequencies for which the demand was so greatly exceeding the supply.

With this in mind, and having in successful operation the cab-signal system, which had been developed in cooperation with the Union Switch & Signal Company, and first installed on the Pennsylvania, which utilized induced electric currents, it was decided to look to the field of induction instead of space-radio for additions to the system of control of trains. In the development of cab-signals it was found that the most suitable method of actuating reproductions of the wayside signals on cab-signals in cabs of locomotives was by use of induced current in the locomotive cab signal circuit. By suspending coils from the locomotive over the rails, current in the rails induced current in the locomotive cab signal circuit, thus reproducing the wayside signal indications on the cab-signals.

The same principle is employed in the inductive train communication system. The telephone circuits between the locomotive on the front of trains, cabooses on the rear of trains, and wayside offices, are made possible by employing the inductive principle to bridge the gaps between the vehicles and the transmission paths consisting of the rails and wire lines.

Applied to Freight Train Operation.—Continued experimentation and research by the Union Switch & Signal Company, and field trials in service on various portions of the Pennsylvania Railroad, finally resulted in an inductive train communication system which appeared to fulfill all of the railroad requirements. For over two years now we have had the benefit of the use of this communication system in normal freight train operations (see *Railway Age*, February 12, 1944). Its use has shown numerous advantages in the movements of trains by reason of the close contact constantly available between the employees on trains and between them and the block-operator at the wayside office.

During the course of this experimentation under normal operating conditions it was found that improvements could be made in the system by changing it from "amplitude modulation" utilizing 5700-cycle current, to "frequency modulation" using 88,000-cycle current. Trials of the improved system were so satisfactory that it was decided to adopt it for general use over the railroad. A careful study of all of the railroad's train communication uses in the light of the performance of the inductive system, developed that it would fulfill every anticipated railroad requirement and thus make unnecessary the employment of space-radio for any train communication purposes.

Extension to Middle and Harrisburg Divisions.—Having determined by experimentation the possibilities of use of train communication on a single-track relatively

light traffic branch line, one of the heaviest traffic multiple track divisions of the railroad was selected for further operating experiments. Authority was secured to employ a two-channel, frequency modulation, inductive train communication system in freight and passenger service on the Middle division between Harrisburg and Altoona, and in through passenger service on the Pittsburgh division from Altoona to Pittsburgh. An order has been placed with the Union Switch & Signal Company for train communication sets to be installed on 275 locomotives, 90 cabooses and at 6 interlocking stations spaced about 40 miles apart, and work is going forward on the project. Within the next year it is hoped the system will be in full and complete operation between Harrisburg and Altoona, and between Altoona and Pittsburgh.

This line of road has the most modern signaling equipment, such as automatic block signals, cab signals, interlockings, power operated switches, dragging equipment detectors, slide protection fences, panel-type lever blocking devices, universal track circuits, electrically locked switches, cab-signal code-changing devices, and the like.

Primarily an Operating Facility

In June this year the average movement of trains was over 210 daily. There were in round numbers 50 passenger trains in each direction and about 55 freight trains in each direction every 24 hours. There are few railroads anywhere that carry such an enormous volume of traffic. With this multiplicity of movement it is certain that the contact that is possible between the block operator at the nearest of the six equipped wayside offices and the crews of trains by the use of the inductive train communication system will provide for a better control of train movements and avoid many delays now incurred because of lack of current knowledge of occurrences which at present can only be reported by the use of wayside telephones.

The engineman and conductor on a freight train will be able to talk by telephone to each other when necessary; both the conductor and the engineman on a freight train will be able at all times to talk to the operator in the nearest equipped wayside office. Should the occasion arise, and it is felt to be rather remote, employees on one train can communicate with another train in the vicinity. By the use of the two separate frequencies it will always be possible to break into a telephone conversation and in cases of emergency, communication between any of the units, as just described, can be established almost instantaneously. On passenger trains only the engine will be equipped with the train communication system. It has not been felt necessary to equip the cars of passenger trains, although this could be done if desired.

Experience gained with the greater control that may be exercised over train movements by the use of the train communication system has shown that it is in many respects another kind of signal system. Trains may be started, stopped, slowed down, accelerated, blocked under manual block system operations, and diverted to and from tracks upon receipt of information by enginemen and conductors on trains, somewhat as the movements of trains are affected by information conveyed by signals.

To what extent the use of the new train communication system will contribute to safety of operations on the portion of the railroad we have just described is difficult to assess. It seems unlikely that the additional safeguards to the operation which will be provided by it can be very great, because there are now in service practically every known safeguard and aid to efficient railroad operation.

Refrigerator Car Design Proposals

**General-purpose car favored by growers and shippers—
Wide interest shown in conservative approach—Dimensions
follow A. A. R. standards with only minor variations**

AS a result of action taken at the annual meeting of the United Fresh Fruit & Vegetable Association held this year, a committee was appointed to study refrigerator cars and the rail transportation of fresh fruits and vegetables. The association, recognizing that few cars were being built during the war and that those in service were wearing out at an accelerated rate because of wartime demands, felt that a fairly extensive new construction and rebuilding program would be required after the war. Its action in appointing the committee was intended to provide a careful consideration of needed improvements in design to be adopted as standard for new cars.

The first aim of the committee was to arrive at a practical and workable program, representing the common needs and wishes of the majority of shippers and receivers, and to make this suggested program known to the railroads and private car owners. Despite the fact that the general opinion had been that shippers could not agree on any common standard design of refrigerator car, unanimity was achieved and is represented in the complete report. The committee voted that the chairman, John N. Kelley, manager fruit transportation, Fruit Dispatch Corporation, New York, bring its action to the attention of the carriers, the private car lines, the A. A. R., the United States Department of Agriculture and all other interested groups, requesting their support in the realization of a program which would insure the incorporation of certain features in new or rebuilt cars to be constructed now or after the war. As proposed, the program indicates the committee's feeling that the interests of all would be served best by a general-service car, built and equipped to serve the requirements of shippers of all fresh fruits and vegetables, and designed to provide adequate refrigeration, heating and ventilation for all of the commodities. Recognition was accorded the fact that special cases might require special sizes or types of cars but the general-purpose car was deemed most desirable as providing satisfaction to the greatest number of shippers. The specific use of ice or ice and salt as refrigerants was not intended to exclude further testing of other methods but the committee felt that immediate suggestions for car construction could not include either refrigerating or heating devices which still require further development.

Reception Generally Co-operative

All of the groups which have been approached by the committee have expressed their interest in its recommendations and, in general, have shown a cooperative attitude. Governmental agencies, including the Interstate Commerce Commission, the Office of Defense Transportation, the Bureau of Plant Industry of the Department of Agriculture, and the Marketing Facilities Branch of the War Food Administration; refrigerator-car builders and operators; various trade groups; and, several

branches of the A. A. R. are now studying the recommendations. The Car Construction Committee of the Mechanical Division, A. A. R., has the proposals under consideration.

Since the original committee report was released other associations of refrigerator car users have been invited to join in backing the program and it is anticipated that they will do so.

Committee Recommendations

1—Dimensions.—Great stress was placed on the importance of having the inside dimensions of the cars uniform, because lack of uniformity in this respect complicates the proper loading of many packaged commodities. There dimensions are to be the same as those called for in the specifications of the A. A. R. standard freight refrigerator cars, ice, ventilated type, suitable for fruits and vegetables, as covered in the A. A. R. specification dated March 1, 1940:

Inside clear length between bunkers, ft.-in.	33-2 3/4
Inside width between lining, ft.-in.	8-3
Inside height, floor to ceiling, ft.-in.	7-9*
Inside height, floor-rack to ceiling, ft.-in.	7-3

The members expressed themselves in favor of these dimensions because most of the cars built in recent years have had these dimensions and have proved very satisfactory in service.

2—Metal under-frames, metal framing, metal outside sheathing, and the use of metal and waterproof plywood, wherever added strength, rigidity and shape retaining can be obtained by their use. It is urged also that the railroads be requested to use the lightest weight metals possible, consistent with the required strength, and to use aluminum or other alloys where suitable. Due consideration should be given to reducing the weight of the car as much as possible, consistent with good construction, to the end that the cost of handling perishable commodities may not be unduly high because of excessive dead-weight transported.

3—Steel wheels, easy riding trucks and improved draft gears to enable cars to travel at high speeds and to absorb vertical and horizontal shocks that would otherwise be transmitted to the load.

4—Insulation to be Hairfelt or Hairinsul, with k value of not more than .27, or an insulation the equivalent of the hair. Insulation to be installed in continuous blanket form with as few breaks in each layer as possible, and in the following minimum thicknesses, based on the k value of .27: 4 in. in the floors and roof; 3 1/2 in. in the side-walls and ends.

5—Water ice to be retained as the source of refrigeration in new equipment, leaving other forms of refrigeration for further study, tests and practical trials.

Strong preference was stated for the end ice-bunkers

* Minimum—To be increased to 7 ft. 10 1/2 in. to accommodate blower fans.

vs. overhead ice-bunkers, the chief factors being no satisfactory method yet developed of heating with portable heaters in overhead bunker cars; too many hatches to maintain; too slow icing; probable too high cost of maintenance; and generally, hesitancy to go forward with high center-gravity cars with these obvious difficulties, in view of the high-speed schedules generally wanted.

6—*Bunkers to be equipped with collapsible bulkheads, half-stage icing* and bunkers to have total capacity of not less than 11,000 lb. Hatch plugs and vent covers to be of the direct ventilating type, with special attention given to tight-fitting plugs and easily adjusted ventilators.

7—*Fans.* Cars to be equipped with blower type fans, operating beneath the floor racks the entire width of the car near the bottom bulkhead openings. Fans to be belt-driven from the wheel tread and the air circulated upwards through the bunkers so as to discharge cold air over the lading through the top openings. These fans to be equipped so they can be operated by electric motors when the car is not in motion.

8—*Temperature-indicating devices.* Cars to be equipped with distant reading temperature-indicating devices that will enable inside temperatures to be determined from the outside of the car at two points—one at the floor and one at the top, center of car.

9—*Appearance.* The car to be distinctively new in appearance. While it is recognized that it is not practical actually to streamline each car for wind resistance, all members stressed the importance of having streamlining as far as it is practical to do so, consistent with good and efficient construction.

It was considered highly important that the car containing the above recommended features should also bear the outward marks of change, so as to render a more pleasing, distinctive appearance—in short, a car that would have “sales appeal.”

Proposed Items for Study

In addition to the above, the committee felt it should ask the carriers and private car lines to give serious consideration to the further improvement, with a view to the eventual adoption of the following:

A—*Car heaters.* While car heaters are recognized as not being an integral part of a refrigerator car, it was felt that the railroads should be notified of the committee's interest in the development of an improved rugged heater, that could be thermostatically controlled. The prevalence of over-heating and freezing due to the failure of the present heaters constitute a major worry and the development of a better heater is of paramount importance.

B—*Air space—side-walls.* If it is possible to maintain the inside dimensions as outlined above and provide adequate insulation without exceeding the permissible overall width of the car, it is requested that an air space of not less than one inch be provided between the main wall and the inside lining of the car. This air space to be open top and bottom so as to provide for free circulation of air behind the lining for the better protection of solid loads against heat and cold.

C—*Load dividers.* The railroads are requested to further study load dividers, with the view to developing a type that can be permanently installed.

D—*Double-deck floor racks.* Development of a practical double-deck floor rack to be built in cars so that when lifted or folded out of the way, it will not interfere with standard loads, yet one that will permit the loading of bagged products, such as oranges and onions, without crushing the bottom tiers.

Much Grain Still to Be Moved

RAILROADS are well over the hump in the movement of this year's major grain crops but, in view of the grain yet to be moved, the grain transportation situation will remain tight for the balance of this year and part of next year. The corn crop, much of which remains to be moved, is estimated at 3,200,000,000 bushels, more than half of which is being shipped from Iowa, Illinois, Nebraska, Missouri and Kansas. The oat crop from 14 states will reach 1,192,000,000 bushels and the barley crop 287,000,000 bushels. In addition the grain sorghum crop, which will have its heaviest movement from Texas, Kansas and Oklahoma, will aggregate 152,000,000 bushels and the soybean crop, most of which is raised in Illinois and Indiana, will amount to 185,970,000 bushels. Stocks of grain on farms on October 1 were as follows: Wheat, 546,390,000 bushels; oats, 970,188,000 bushels; corn, 209,675,000 bushels; and soybeans, 4,840,000 bushels.

The handling of this traffic together with other heavy movements will not be a simple task and, in anticipation of difficulties, Col. J. M. Johnson, director of the Office of Defense Transportation, has called upon members of O. D. T.-I. C. C. grain and grain products transportation conservation committees, including the permit, storage and rice groups for their continuing support. “I do not need to remind you,” he said, “that the grain movement job is far from completed and that, regardless of the fates of the war, we will continue for several months to require maximum conservation and elimination of delay in cars handling grain and grain products. Will you please ask your membership, therefore, to continue their splendid activities in the months immediately ahead with my assurance that we shall not consume their time and energies one day longer than is necessary to complete fully our work. Your committee members know their jobs and they know the solutions to grain car supply problems. In commending them for their past accomplishments, I earnestly solicit their continued cooperation and advice throughout the remainder of this year and into next year as long as may be necessary.”

Earlier Crops Handled Successfully

As early as October 10, the grain car situation had become quite critical and as a result the Interstate Commerce Commission issued Car Service Order 242, providing heavy penalties to induce the release of box cars. Under this order box cars may be held free for 48 hours but thereafter the charge, effective October 19 and continuing to November 19, will be \$2.20 per day for the third and fourth days of 24 hours, \$5.50 per day for the fifth and sixth days and \$11 for each day thereafter. On October 12, the order was amended to reinstate the use of the “average” agreement, under which shippers may credit the time saved in loading or unloading cars in less than 24 hours against the time consumed beyond the free time. The amended order cuts down the four debit days allowed under the “average” agreement to two days and changes the penalties to \$2.20 for the third and fourth days, \$5.50 for the fifth day, \$11 for the sixth day and \$16.50 for each day thereafter.

Generally, the movement of grain from the Southwestern and Central Western districts was satisfactory, although car supply was not entirely adequate and some

restrictive measures were necessary. However, there was relatively little loss of the crop and delay in the movement.

When the winter wheat crop in the Southwest, the largest on record, began to move in June, the situation seemed hopeless because, due to the demands of war, the railroads could not accumulate large numbers of cars as in previous years. However, the man-power shortage at unloading points and a permit system which was placed in effect controlled the shipping of wheat and preserved the liquidity of movement.

Abuses Led to Critical Situation

At the beginning of the movement, some shippers, in an eagerness to market their wheat, shipped large amounts even though the O. D. T. had issued an order that no cars were to be used for storage and the I. C. C. and the railroads had placed a permit system in effect. These practices, coupled with such abuses as shipping as cash grain and later reconsigning to storage in an effort to circumvent the permit system, immediately created a critical situation, because elevators could not secure unloading help and many cars were held up at destination awaiting unloading.

To solve that problem, the permit system was strengthened by embargoes which prohibited the shipment of wheat to elevators that could not unload immediately. On June 29, 293 elevators were blocked in the five Southwestern states. This was the highest number blocked in the territory on any one day during June and July and compares with an average of 46 per day for the entire season. The effectiveness of controlled shipping was further indicated by the fact that almost 80 per cent of this season's crop was moved during June and July while normally only 65-70 per cent moves during the first eight weeks after harvest gets under way.

The unloading situation became acute in the last few days of June and the first market to be placed under the permit system was Enid, Okla., on July 1. It was followed by Ft. Worth, Tex., on July 4; Toledo, Ohio, Fostoria, and Cincinnati on July 5; Columbus, Ohio, on July 6; Kansas City, Mo., and Louisville, Ky., on July 10 and Chicago on July 11. At Kansas City, receipts set a record for the season with 2,280 cars of wheat received on July 10. These receipts brought the backlog of cars awaiting unloading to 4,800 with the shortage of help limiting unloading to 900 cars a day. At Ft. Worth, the backlog was about 900 cars but increased on July 10 and 11 when prisoners of war from Mineral Wells refused to unload cars. On July 11, elevators at Chicago and Columbus were filled up, while those at Indianapolis, which usually handled some of the Kansas crop, had difficulty taking care of wheat from Indiana.

As a result, shipments to Enid, Okla., and Ft. Worth, Tex., were embargoed on July 1 and 4. The Kansas City, Mo., and Louisville, Ky., markets became glutted and were embargoed on July 10 and 11, and, to protect the Chicago market, it also was placed under embargo. By July 17, the Kansas City and Chicago facilities had been relieved and the embargoes were modified. On July 14, 70 elevators were still blocked in the Southwest.

The movement of wheat from the Southwest passed its peak about the middle of July, with the railroads continuing to supply as many cars as could be unloaded at destination points. However, on July 18 there still remained on the ground about 6,000,000 bushels at railroad stations and about 9,000,000 on farms, while country elevators and local storage space still contained large quantities of grain awaiting shipment to market. During June and July, more than 100,000 cars were loaded with daily loadings, reaching as many as 5,000 cars.

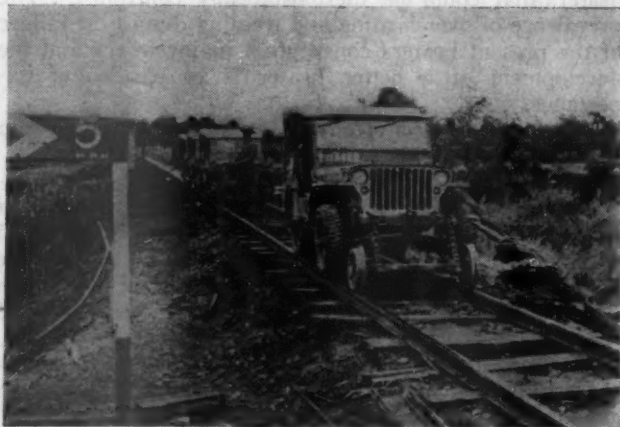
It was fortunate that the railroads and shippers got control of the Southwest movement at an early date, for it enabled the railroads to transfer cars to Nebraska where the wheat crops had matured earlier than usual, and to prepare for the Northwest grain movement which started on August 1. By September 14, the Northwest harvest was in full swing. Eastern roads during the previous six weeks had delivered 28,315 empty box cars to Western connections, the Southwestern roads had assisted to the extent of 2,600 cars and the Pacific Coast roads had helped by delivering 6,600 cars. This assistance made it possible to move the entire oat crop and most of the barley crop. The spring wheat harvest was delayed, but was moving to market in large volume by September 14, the loadings at that time running slightly ahead of those of last year.

Man-power shortage and limited car supply also militated against the movement from the Northwest, but the permit system functioned satisfactorily. At the peak of the season only 584 elevators were blocked, compared with 1,284 in the peak last year. Up to September 13, the number of blocked elevators in the Northwest averaged 199 daily, compared with 441 for the same period last year.

On October 12, wheat in the Northwest was still being thrashed and, even though the peak had been passed, car shortage persisted. On the previous day the accumulation of car orders had reached 1,850, only 50 cars were loaded and only 90 unloaded. It was estimated about 300 cars a day were needed to meet demands.

To relieve the car situation in this territory the I. C. C. on October 12, issued service order No. 244, under which cars placed for loading before noon of one day in Minnesota, Montana, Wisconsin, North Dakota and South Dakota must be loaded before 10 o'clock the next morning or be charged against the shipper's allotment as an additional empty for each succeeding day held for loading. The magnitude of the transportation problem in Montana, Minnesota, North Dakota and South Dakota is revealed in the crop estimate of September 1, which aggregates 1,141,251,000 bushels of spring wheat, durum, corn, oats and barley, which normally move during the remaining months of the year. At 1,800 bushels per car and on a turn-around basis of 8 days, 79,253 cars would be needed to handle these crops.

* * *



British Combine

Army Railroaders in the Burma-China-India Theater, Hoping to Keep Up the Flow of Supplies Throughout the Monsoon Season, Look to the Jeep on Rails to Help Accomplish This End. Advancing Towards the Front Lines, at a Loaded Speed of 20 M. P. H. These Rail Jeeps Have on Their Return Runs Averaged 30 to 40 M. P. H.

Pacific Coast Freight to Double

CONTINUING heavy traffic on U. S. railroads after victory in Europe, with military traffic to the Pacific Coast doubling, was forecast at the annual meeting of the National Association of Shippers Advisory Boards at Chicago on October 18. In keeping with the request of the Office of Defense Transportation to keep travel at a minimum, attendance at the meeting this year was limited to one delegate from each board, and representatives of the A. A. R., the O.D.T., the I. C. C., the Army and the Navy. Limiting attendance, however, will not reduce the effectiveness of the deliberations for the minutes will be made available to more than 60,000 persons engaged in transportation, including the 23,000 members of the 13 boards.

Representatives at the meeting, over which President G. H. Shafer, general traffic manager of the Weyerhaeuser Sales Company, St. Paul, Minn., presided, elected the following officers for the ensuing year: President, C. J. Goodyear, traffic manager of the Philadelphia & Reading Coal & Iron Co., Philadelphia, Pa.; vice-presidents, Carl Giessow, director of the traffic bureau of the St. Louis Chamber of Commerce, and Joseph P. Gudger, traffic manager of the Gulf Oil Corporation, Houston, Tex.; and secretary, W. B. Shephard, assistant general traffic manager of the Aluminum Company of America.

The docket of the meeting consisted of opening remarks by the president; a report of the secretary; a report on the national transportation situation by Warren C. Kendall, chairman of the Car Service division of the A. A. R.; a resume of the car efficiency situation by Mr. Giessow; a summary of the national legislative situation by J. Carter Fort, general counsel of the A. A. R.; and an analysis of military transportation by Brig. Gen. A. F. McIntyre of the Transportation Corps of the Army. This was supplemented by broadcasts from three radio stations in which the participants were: Albert R. Beatty, manager of the public relations department of the A. A. R.; Mr. Kendall; Robert S. Henry, assistant to the president of the A. A. R.; Homer C. King, executive assistant of the O. D. T.; Brig. Gen. McIntyre; Rear Adm. Everett G. Morsell, district supply officer of the Ninth Naval district at Chicago; President Shafer, Col. E. C. R. Lasher, deputy chief of the Traffic Control division of the Army Transportation Corps at Washington; William H. Day, Boston, Mass., vice-president of the National Association of Shippers Advisory Boards; and Mr. Fort.

Heavy War Traffic to Continue

Army traffic for the war in the Pacific will be about double what it is now, Brig. Gen. McIntyre asserted during his broadcast over Station WLS. To supply a force of 250,000 men in an initial landing, he said, and to maintain this force for a period of 30 days, requires almost 1,900,000 tons of supplies. This, he continued, will require 54,000 freight cars.

The Army's transportation job will grow more difficult, Gen. McIntyre stated, because the collapse of Germany will be gradual and will extend over a period of time—perhaps weeks or even longer. "Consequently," he said, "there is not much likelihood of any sudden letup in the need for military transportation to Europe. After the surrender of Germany, there will still be a lot of traffic going to Europe. We'll still have a big army over there

National Association of Shippers Advisory Boards' meeting brings pledges of continued co-operation

to keep supplied. We'll be shipping millions of tons of food and goods to help sustain and rehabilitate the peoples of Europe. Besides that, we'll be sending through our Atlantic ports, men and war equipment for our major assault against Japan, because our West Coast ports will not have the capacity to handle all of the traffic going to the Pacific. We are also planning to use the Gulf ports."

Plans are being formulated within the War Department and by the Transportation Corps, he stated in his address before the meeting, to control the flow of traffic after the defeat of Germany, so that the heavy volume of war material may be turned away from the ports of embarkation through which it normally would pass and be diverted to the Transportation Corps' holding and re-shipment points, or to Army general depots, or to Pacific Coast ports for movement to Pacific theaters of war.

He continued:

"It is confidently expected that this diversion can be accomplished without undue strain upon the railroads. There is no danger of chaos, but obviously there will be many difficulties and there will be some cross-hauling which cannot be completely avoided. Port-bound shipments enroute to the Atlantic Coast will be so disposed of as to avert port congestion and while there may be a hiatus in which railroad operation will be troublesome, there is no reason to anticipate that an abnormal transportation situation will long endure nor is there reason for alarm as to the final result."

Navy Requirements Are Accelerating

The demands of the Navy for shipping facilities to the West Coast, Admiral Morsell stated on the radio, will not be delayed until V-E Day because more and more supplies will be needed as the Navy's operations in the Pacific increase in scope. "Our transcontinental railroads," he said, "will have to provide more facilities for the handling of unusually heavy and unwieldy shipments because the Navy uses heavier armament than any other branch of the armed services. The needs for the Pacific war will be so great that it will not be possible for us to load all our supplies from West Coast ports. A great many shiploads of supplies will be loaded at Atlantic ports for Pacific destinations and the railroads in the East will have to carry these supplies to those ports. None of the railroads can expect any rest from now until both V-E and V-J Day are realities."

From January through September, the railroads moved 2,250,000 carloads of tanks, trucks, arms, ammunition, petroleum and other supplies for the Army and 630,000 carloads of supplies for the Navy, Colonel Lasher told his radio audience. In addition, they transported about 8,000,000 troops in special cars and special trains for the Army and 1,800,000 men for the Navy.

"Since we entered the war," Colonel Lasher continued, "our railroads have handled more than 300,000 prisoners of war within the continental limits of the United States. These men, most of them Germans, were moved to about

130 base camps and 300 branch camps located in all parts of the country. In a recent four-month period, our railroads handled nearly 50,000 of our sick and wounded service people. This took 288 special hospital trains in addition to regular equipment."

A program will be needed after the war which will have for its goal an increase in the number of freight cars owned by the railroads, so that sufficient cars will be available to handle the commerce of the country at substantially its present level, according to Mr. Kendall in his remarks on the national transportation situation.

"Railroads as a whole," he said, "own cars in sufficient numbers to fill all needs that can now be foreseen. This is not to say that all roads are sufficiently supplied in all categories, for there are some that need additional equipment of certain types to meet the changing requirements as the centers of industry, or the channels of movement, change. By reason of the wear and tear of the war period and the inability of the roads to obtain equipment during the last three years, such a program is likely to be heavy during the years immediately ahead. There are sound reasons why the railways should continue to be ready to handle all traffic offered them.

"The railroads are in the midst of greater difficulty in supplying needed cars than at any time in the past 20 years, but I can assure you there will be no serious car shortage, though there may be a day or two at a time, in practically all parts of the country, when the railroads will be unable to furnish shippers with cars when and as wanted. The shippers and receivers are, generally, doing their part toward providing a full car supply. We are finding too many instances of railroad failure to move cars as they should be moved. This is understandable when one realizes that there are thousands of inexperienced employees in yard and station work who are not sufficiently familiar with the requirements of their jobs to supervise properly the many little things that make for efficient car handling. Then there are many spots throughout the country where there is a definite shortage of yard employees and switchmen and many potential switching crews are thus tied up for days at a time for want of adequate personnel. I am not attempting any alibi, but merely presenting facts as they are."

Future of Advisory Boards

Continued efforts of members of shippers advisory boards to aid in the handling of future traffic was pledged by President Shafer. "The war is not over," he said. "The indications are that we may yet be confronted with at least another year of unusual transportation demands. As the war shifts to the Pacific, the traffic burden of many of the carriers will increase. An easy labor supply for the carriers is not immediately in sight; existing equipment is wearing out; and new cars in volume cannot be installed in time to give substantial relief. Under these circumstances, there is but one answer—a continuation of the advisory board program that has been so effective in recent years."

Mr. Shafer recommended that the regional advisory boards reconsider the scope of their objectives and their functions and give greater emphasis to basic policy questions and their corollary issues. The boards, he said, should now take an active part in the determination of a national transportation policy. In addition, he suggested that areas of jurisdiction be changed where they are too large; that leaders of agriculture, industry and finance be included in the membership and that the boards be prepared to carry on in the event the Attorney General is successful in his efforts to dissolve the Association of American Railroads. He stated further:

"In my opinion, the present economic position of the transportation industry and the conflicting policies of regulation offer a made-to-order pattern for government ownership, as soon as the earnings derived from the war

and rehabilitation traffic dwindle to a normal peacetime basis. The advisory boards can no longer ignore the larger aspects of this paramount issue.

"Among other things, we are pursuing a philosophy of regulation, conceived in the public interest of 40 years ago. The result is that a war for traffic between the various forms of transportation is being promoted at the expense of the shipper and the public generally. In the process, we are building a great peacetime oversupply of basic transportation facilities. This leads to the conclusion that we shall again be asked to pay for all of the wastes and destructive competitive practices involved in such a structure, or face the issue of government ownership.

"Declarations of congressional policy in the various legislative acts are contradictory. It has been said that the most recently adopted declaration in the Transportation Act of 1940 is subject to so many interpretations that not even the leading members of the House and Senate are able to define what it means. Congress divides jurisdiction between its various standing committees over different phases of common-carrier regulations. One committee recommends legislation without reference to the policies of another. Congress also divides the responsibility over the administration of its regulatory acts between various federal agencies.

"Added to an already conflicting fabric of legislation, comes the Anti-Trust Division of the Department of Justice with its sweeping indictment of the railroads under the Sherman Anti-Trust Act. If the government is successful in this suit the Association of American Railroads would be dissolved. The Car Service division would no longer be the instrument through which the Advisory Boards could implement their programs. This assault should suffice in itself to convince the membership of the boards and the public generally that we can no longer sit idly by and ignore these major issues of public policy, which would destroy the very foundation upon which this movement has been constructed.

"There is a flagrant demonstration of the lack of statesmanship in dealing with the transportation problem in the Congress of the United States. For many years, vast discrimination has existed against the commercial shippers of this country because of continued land-grant preference insisted upon by government. This is not a rate problem per se; it is a broad policy issue. Twice legislation has been introduced and hearings have been held. Each time favorable action by Congress has been thwarted by political considerations on the part of a very few Congressmen or Senators, supported, if you please, by a well-organized group of traffic managers who serve government bureaucracies. The third and pending effort is now being held up, it is believed, by three Senators who come from inland states and who presumably represent shippers who are asked to pay for the preference accorded government traffic."

Port Situation Is Satisfactory

Although nearly as much export freight passed through American ports during the first nine months of this year as was handled during the entire year of 1943, the port situation is satisfactory, Mr. Randall told the members. "The railroads handled, without congestion, in 1943," he continued, "the greatest volume of export freight traffic of all time. There were unloaded at United States ports in that year 1,461,723 carloads of export freight, an average of 3,997 cars per day." He went on:

"It was thought that the performance of 1943 was an outstanding one, yet in the first nine months of 1944, we have handled

nearly as many carloads of export freight through the ports as we did in the entire year 1943, the total for the nine months being 1,412,476 cars, or an average of 5,155 per day, an increase of 29 per cent. Comparing this performance of the first nine months of 1944 with the year 1940, we find an increased movement of approximately 131 per cent.

"The tempo of the export movement is still increasing. The average daily unloadings during the month of August were 5,153 carloads and 5,932 for the week ending September 29. September was the seventh consecutive month that export unloadings have exceeded 5,000 cars per day. The 'bank' of freight on hand at all ports as of October 6 was 24,533, or slightly over a four days' supply, while the heaviest 'bank' at any port was approximately six days.

"Although not much has been said about it, the movement of import freight through the United States ports is of considerable volume. The record shows that during 1943, 333,513 carloads of import freight were handled by railroads from United States ports, as compared with 271,425 in 1942. Commodities handled by the railroads from the ports during 1943, in volume of over 10,000 cars each were, in the order of their volume, ore, sugar, bananas, wool, coffee and canned goods."

The work of the car efficiency committees throughout the country has done much to conserve transportation facilities, according to Mr. Giessow. Car detention has definitely decreased to a new low and shipper response to committee efforts has been generally very good, he said. The number of committees, he continued, has increased from 192 in 1941 to 490 on September 1, 1943, and to 887 on September 1, 1944. Detention reports were made from 1,684 cities and towns as of September 1, 1944, compared with 1,149 cities a year ago.

Loss and damage will amount to \$60,000,000 in 1944, Mr. Jack predicted in his report on the Perfect Shipping Month Campaign.

Legislation

It is not conceivable that general statutes, such as the anti-trust laws, will be permitted to clash with the national transportation policy, developed step by step over the years and finally incorporated by Congress into the Interstate Commerce Act as amended in 1940, Mr. Fort declared in his discussion of the national legislative situation. "Whether or not a clarifying amendment to existing law is desirable in order to prevent long-drawn-out, expensive and unsettling litigation, if for no other reason," Mr. Fort stated, "is a question which doubtless will receive the painstaking consideration of those who wish to preserve an adequate and efficient system of railroads to meet the needs of commerce and the requirements of war." He continued:

"Certainly, it can be taken for granted that, one way or another, it will be made entirely clear that railroad rates are to be controlled, as they have been in the long past, by a body of government experts, such as the Interstate Commerce Commission, and not by haphazard resort to procedures wholly unsuited to that purpose.

"The Hayden Highway Bill, S. 2105, is the last of a series of bills providing for federal aid to highways which has been introduced into the present Congress. It is the first, however, which has provided for the participation by the railroads in the cost of highway-railroad crossing projects. In fact, there was no such provision in this bill when it was introduced, or when it was the subject of hearings, or when it was favorably reported by the Senate Committee on Post Offices and Post Roads. However, there was a last-minute committee amendment on the floor of the Senate, which required that the railroads pay not less than 15 per cent of the cost of highway-railroad crossing projects. The bill was passed by the Senate with this amendment. It is now before the House, where it has been referred to the Committee on Roads. The requirements concerning railroad participation in the costs of such crossings constitutes a complete departure, and we think an

extremely unwholesome one, from the policy which Congress has followed during recent years. It has long been recognized that the elimination of grade crossings serves almost exclusively the purposes of highways and highway traffic, and not the purposes of railroads and railroad traffic.

"If Congress is to finance the construction of highways for use by the competitors of the railroads—and that is a question which I do not intend to discuss—certainly it would seem grossly unfair to require the railroads to make a special contribution to the cost of such construction, as would be done by the Hayden bill, in addition to the contribution which they must make along with all other federal taxpayers.

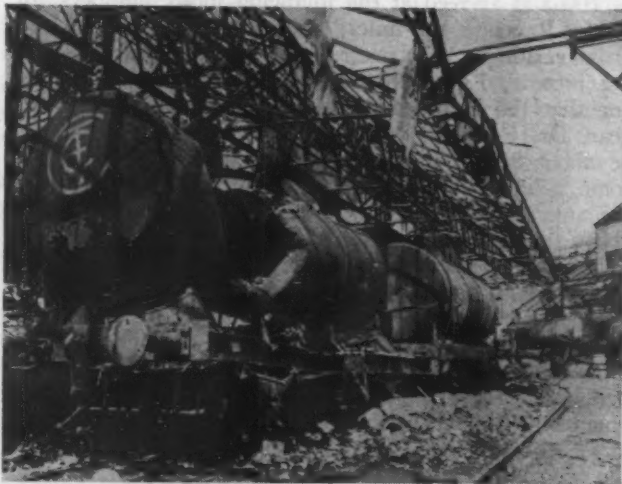
"Another pending bill of much importance is the so-called Railroad Social Insurance Bill. This is a proposal to replace the existing railroad retirement system and the existing railroad unemployment system with a new scheme of railroad social insurance, carrying greatly enlarged and expanded benefits to railroad employees. The proposal would place upon the railroads a much heavier burden of payroll taxes than other industries would be required to pay for similar purposes, and would provide for railroad employees much more generous benefits than are received by employees in other industries. In short, the proposal is not for social insurance, in any proper sense; it is a proposal for class legislation.

"The additional cost to the railroads, in the form of taxes, would be about \$100,000,000 per year, on the basis of current payrolls. But this is not all—there is every reason to fear that even the enormous added taxes would be insufficient to place the scheme on a sound financial basis. In the end, this additional cost would necessarily fall, in large part at least, upon the users of rail transportation who are themselves subject to much less generous social security benefits.

"This bill is 110 pages in length and its provisions are incredibly involved and confusing. The proposal would engraft upon the present railroad retirement and pension system a whole new concept of life insurance annuities for the survivors of railroad employees and of retired railroad employees, and would engraft upon the present railroad unemployment system, now confined wholly to occupational unemployment, a new and unprecedented system of insurance against non-occupational sickness, injury and other disability, including maternity.

"We are opposed to this bill. In taking this position, we do not find it necessary to seek to prejudice any proposals which may be made hereafter with respect to social security legislation, which may be properly so described and which have a universal or comprehensive application to all persons or all employees. But we cannot see any possible justification for setting up a special and preferential system of social security for the employees of one industry, when that system is in no way related to conditions peculiar to that industry."

* * *



U. S. Army from British Combine

Tank Cars Destroyed by U. S. Army Air Force Bombers at Gennevilliers, Near Paris, During the June Fighting in Normandy, When the Enemy Lost 13,000 Tons of Oil

Hearing in Reopened Ex Parte 148

Gets under way with railroad presentation in support of motion to restore freight rate increases suspended since May 15, 1943

WASHINGTON, D. C.

EX PARTE 148 reopened on October 23 to a capacity audience in the large hearing room at the Interstate Commerce Commission's Washington, D. C., headquarters. The hearings, which are expected to continue throughout this week and next, got under way with the railroads' presentation in support of their motion for restoration on next January 1 of the freight rate increases originally authorized in the proceeding but suspended since May 15, 1943.

On the bench with Commissioners Aitchison, Splawn and Mehaffie is a committee of state commissioners, including Commissioner Florence M. Kiely of the Michigan Public Service Commission, the first woman to appear in such a role. Spearheading the opposition to the restoration of the freight rate increases, amounting to about 4.7 per cent, is the Office of Price Administration, which has also asked the commission to revoke the passenger fare increase that has remained in effect since early in 1942.

First railroad witness was Dr. Julius H. Parmelee, director of the Bureau of Railway Economics, Association of American Railroads, who presented an exhibit giving detailed figures to indicate how increased wage and material costs are exerting an adverse effect on net railway operating income—despite the higher gross. He estimated that total operating revenues will reach an all-time peak this year, hitting \$9.45 billion or two billion dollars above the gross for 1942 when net railway operating income reached its peak of \$1.485 billion. This year's net railway operating income, as estimated by Dr. Parmelee, will be \$1.1 billion, down \$385 million from the 1942 peak.

Parmelee Estimates Post-War Revenues

To illustrate in another way the "sharp contrast" between 1942 and 1944, the witness took the 1943 factors as 100 and arrived at the following index numbers for 1944: Revenue ton-miles, 117; passenger-miles, 179; gross earnings, 127; net railway operating income, 74; net income, 72. With various assumptions, including one that the European phase of the war will end this year, Dr. Parmelee estimated that the 1945 gross may be about \$7.620 billion; the net railway operating income, \$790 million; and the net income, \$350 million. He anticipated that the gross should show an increase above his 1945 estimate in the first three or four years following reconversion; but the level thereafter "may be about that of the best pre-war year."

His general statement as to the prospects for "the early post-war period" was that the net railway operating income "will range from \$395 million to \$515 million per year." Meanwhile an average annual net railway operating income "in the neighborhood of a billion dollars" will be needed in the post-war period to support the program of capital improvements which Dr. Parmelee outlined as desirable "in the interest of technological progress." In the latter connection the witness discussed the equipment situation in some detail, reaching the conclusion that "350,000 new freight cars and 6,350 new

locomotives would represent minimum requirements over the first five post-war years."

Should Spend \$700 Million a Year

He put at "\$300,000,000 or more" the annual outlay for this average of 70,000 freight cars and 1,270 locomotives per year. He was unable to be as specific with respect to passenger-train cars, but "\$50,000,000 per year for a five-year period would seem conservative in view of the extremely heavy use of such equipment during the war period." Because annual capital expenditures for equipment and for roadway and structures have averaged about the same for the past 22 years, Dr. Parmelee estimated that another \$350,000,000 a year should be spent on roadway and structures during the first five post-war years. With this \$700 million total in hand, he calculated that the aforementioned net railway operating income "in the neighborhood of a billion dollars a year would be required," having previously demonstrated by comparative n.o.i. and capital expenditure figures that "capital expenditures in the post-war period will depend, as in the past, largely on the level of earnings and on traffic prospects for the future."

In another part of his exhibit, Dr. Parmelee showed that increases in wages and prices since 1940 have added \$1.15 billion to the annual operating costs of the railroads. And he presented calculations showing what the results would have been in 1940 and 1941, had present rates, wages, and other unit costs been in effect in those years. The calculations show that 1940's net railway operating income of \$682 million and its net income of \$189 million would have been converted into deficits of \$180 million and \$648 million, respectively. The equivalent of the Ex Parte 148 increases would have reduced these deficits, in turn, to \$13 million and \$481 million. The restated 1941 results show that the net railway operating income for that year would have been down from \$998 million to \$275 million, while the net income of \$500 million would have been converted into a deficit of \$196 million. Including the equivalent of the Ex Parte 148 increases, the adjusted 1941 figures show a net railway operating income of \$469 million and a two million dollar deficit in net income.

O. P. A. Figures Required Adjustment

Other testimony of the B. R. E. director included his comment on the present cash position of the railroads and his "adjustment" of a statistical table on the basis of which O. P. A. is claiming that the railroads "have far outstripped industry generally in the rate of profit benefits obtained from the war." In the latter connection, Dr. Parmelee asserted that the figures were not on a comparable basis, pointing out that the data for industry in general were taken from Bureau of Internal Revenue reports, while figures for the railroads were from reports of the I. C. C. "Was this because the statistics of income published by the Bureau of Internal Revenue for the railroad industry for the base period utilized by the Price

Administrator, that is, the years 1936-1939, showed that the railroads as a whole had no taxable profits for that period, but were in the red by an average of \$117,500,000 per annum?" Dr. Parmelee asked.

He went on to put the figures on what he regarded as a comparable basis, showing a 1943 profit index for the railroads of 463, compared with an index of 531 for manufacturing and mining, 591 for transportation and public utilities, and 433 for trade. With respect to the railroads' cash position, Dr. Parmelee said that the net current assets (\$1.658 billion as of last July 31) indicate a "comfortable position," but not "an excessive amount of working capital." He pointed out that operating expenses are running around \$500 million a month, adding that working capital should include "at least" two months expenses, plus other funds for various contingencies which might arise.

Would Repeal Land-Grant Rates

The witness was cross-examined at some length by the special counsel which O. P. A. has retained for a return engagement in the proceeding—Max Swiren of Levinson, Becker, Peebles & Swiren, Chicago. Other questioners included J. K. Knudsen of W. F. A., Foreman Smith, assistant attorney general of Alabama, and J. S. Burchmore, representing the National Industrial Traffic League, who was interested in the extent to which railroad revenues would be augmented by repeal of land-grant rates. As Mr. Burchmore put it, the shippers want the railroads to have more money, "but we want you to get it out of the government instead of out of us."

Dr. Parmelee was followed by William White, president of the Delaware, Lackawanna & Western, who noted at the outset of his testimony that, from the standpoint of net railway operating income, the carriers "are now in just the same position they were when they filed the original application in this proceeding on December 13, 1941, except that traffic was then on the upward trend and now we are faced with a downward trend." The D. L. & W. president proceeded to give figures supporting this statement and laying the basis for his subsequent contention that the carriers can no longer look to increased traffic to absorb increasing costs—"they can look for assistance only to the restoration of the modest increases in rates."

Among the operating and financial problems ahead of the railroads, Mr. White mentioned the necessity for making up deferred maintenance, and modernizing and improving equipment and roadway. Such a program will call for huge expenditures, which Mr. White pointed out will not only improve service but also do much to sustain employment.

Like Dr. Parmelee, the D. L. & W. president stressed the relationship between the railway expenditures and net earnings. The current and prospective outlook in the latter connection, he said, will determine "whether the railroads provide their share of purchases" and contribute their share to productive employment.

R. L. Williams, president of the Chicago & North Western, made a statement based on facts and figures confined largely to the operations of that road, where the situation as it presently exists regarding traffic volume and trends, financial requirements, condition of physical property, etc., "is fairly typical of railroads in the Western territory." The import of Mr. Williams' testimony was that railroads must be largely re-equipped with new-type passenger cars, improved freight cars, and more efficient locomotives, in addition to improvements in

roadway, if they are to continue to meet competition and serve the public adequately.

On the North Western, the program of improvement and investment necessary immediately after the war would call for "an estimated expenditure of \$65,253,000 for equipment alone," including \$21,653,000 for streamlined coaches. Looking to the future, Mr. Williams observed that he is "definitely convinced that railroads cannot profitably participate in the passenger business with pre-war schedules and conventional equipment," but that they can do so with modern equipment and improved facilities. And he thinks that much the same situation exists with respect to freight service. All of which will take money, thus making increased freight rates "imperatively necessary" at a "very early date."

William Wyer, chief executive officer of the Central of New Jersey, discussed exhibits which showed the effect of war on railway wage and material costs, and recent trends in gross and net earnings. The exhibit on wartime wages and prices dealt with the Civil War, World War I, and World War II, showing for the first two index figures for the war and post-war years on the basis of the first war year as 100. For the present war the year 1939 represents 100, and the figures are carried through 1944, the 1944 index for wages being 140, material prices, 113, and railroad freight rates, 95. On the basis of the exhibit's showing, Mr. Wyer stated that, in every major war, railroad material and labor costs have increased materially and held at the higher levels for a number of post-war years.

Another of Mr. Wyer's exhibits showed how the net railway operating income curve has fallen away since May, 1943, from its correlation with the gross revenue curve. The witness predicted that the decline in n.o.i., already quite marked, will be "tremendously accelerated" when the gross revenue curve starts downward. Commenting on deferred maintenance, Mr. Wyer estimated that it amounts to at least \$400,000,000. On the matter of amortization of equipment, he pointed out that the heavy amortization charges must be discounted by the amount by which current depreciation rates on equipment not subject to amortization have failed to reflect the wartime wear and tear on such equipment.

Some Experiences with O. P. A.

The witness also had something to say of O. P. A. practices, citing the fact that it has this year authorized 19 of the C. N. J.'s pick-up and delivery truckers to increase their charges. The applications for the increases, Mr. Wyer explained, were endorsed by the railroad; he was merely indicating that the price agency does do such things. Also, it authorized an increase of five cents in the price of railroad fuel coal while at the same time cutting the price of commercial coal by a like amount. C. N. J. protested, but was turned down—not on the merits of the matter, but on the technical ground that the railroad was not subject to any O. P. A. regulation.

Walter S. Franklin, vice-president-traffic of the Pennsylvania, stated the "fundamental issue" to be "whether the railroads shall be permitted to charge rates that will reasonably assure them a net income rather than a deficit." He asked the commission to look at the trends rather than at the momentary situation or what the railroad earnings have been in the last two or three years on the high level of traffic during the war.

"The railroads," he went on, "are trying to present their case in advance of reaching the low spot, but not before there has been a very definite change in the trend and a very clear indication of what the future will pro-

duce. They are caught in the position where their wages are fixed by the government and the prices paid for their supplies are fixed by the Office of Price Administration. And now this department of the government, after granting those price increases, is fighting the railroads before another government body that is charged with watching over their financial welfare, despite the fact that the Office of Price Administration has itself forecast the very severe decline in production which is a major fact in the future trend."

Deficit Is on the Way

In order to present the situation in graphic fashion, Mr. Franklin introduced a series of charts prepared from the figures given by Dr. Parmelee in his earlier testimony. He called the chart depicting how net income has for 15 months been decreasing as compared with the same month of the preceding year the most important one; because the net income figures "represent the actual money the railroads have available to use for their vitally important postwar responsibilities and to meet the lean period which everyone agrees is ahead." He had previously asserted that if the present adverse trend continues "it is only a question of time before the railroads as a whole will show a deficit, or at least the net income will be so small as not to properly support the financial structure of the railroads." This threat being apparent to him, Mr. Franklin saw "no compelling reason" why freight rate increases should be withheld "until the situation becomes dangerously acute."

E. R. Oliver, vice-president-traffic of the Southern, discussed the declines in traffic and revenue which will confront the railroads in southern territory with the ending of the war. He estimated that 60 per cent of the freight revenue in the Southern Region is either directly or indirectly due to the war effort. Forty-two of the country's 64 major army posts and camps were located in the South, Mr. Oliver pointed out; and the building and supplying of them brought much freight traffic which will disappear after the war. The situation is much the same with respect to passenger traffic.

To further emphasize his point that much traffic now on the southern roads is of a temporary nature, Mr. Oliver mentioned the war plants which have been located in the territory. (Two stations on the Southern, now producing substantial revenues, have no industries save ammunition and shell-loading plants which will perhaps be closed with the end of hostilities.) Also, the southern roads must face the return of competition from coastwise water carriers; the return to North Atlantic ports of much traffic now moving through South Atlantic and Gulf ports; and a substantial drop in the volume of passenger business which may return that traffic to its former unprofitable basis. Assuming that the war in Europe ends this year, Mr. Oliver estimated that the 1945 freight revenue of the southern roads would be off 19 per cent as compared with 1944.

A somewhat similar presentation with respect to the situation of the southern roads was made by J. E. Tilford, assistant vice-president-traffic of the Louisville & Nashville. He estimated that, with the end of the European phase of the war, the drop in railway traffic will be proportionate to the cut-back on war production—40 per cent. On that basis, the annual drop in freight revenue of the southern roads would be 22 per cent of the 1944 freight revenue or \$209,670,000. In addition to the return of water competition and other adverse prospects mentioned by Mr. Oliver, Mr. Tilford noted how motor carrier services have been curtailed by the war. He

anticipates that the truckers "will undoubtedly recover a large part of the traffic diverted to the railroads."

Mr. Tilford also noted how railroads have benefited during the war by the heavier loading and efficient use of cars which has enabled them to perform such "phenomenal service." In that connection, however, he pointed out that such results have been due in large measure to the cooperation of shippers, and "at no small expense to them." He expressed doubt that the same heavy loading can be expected in times of normal commercial and carrier competition, especially when cars become more plentiful.

As was the case with Dr. Parmelee, the other railroad witness got most of their cross-examination from Special Counsel Swiren of O.P.A. and Mr. Knudsen of W.F.A. Such cross-examination was in the main an undertaking to draw from the witnesses admissions that the outlook for the railroads might be appraised as more favorable than had been indicated in their direct testimony.

Communication . . .

How to Recruit Likely Young Men as Railroaders

VANCOUVER, B. C.

TO THE EDITOR:

As a former railway employee now engaged as a technical teacher, it seems to me that the 1,200,000 boys of the age of 16 in Canada and the United States should be offered the necessary inducements to enter railway service, and I am sure that the railways can easily pick 40,000 such boys if they are needed.

As a suggestion of how this should be done I would recommend the organization of traveling schools of instruction in railway cars, equipped with lecture rooms, movies and dormitory facilities. A complete syllabus of training should be made out to cover a 10-day camp period attended by boys recruited in the city, but instructed in the lecture camp to be situated near a terminal or division point with enginehouses and yards near by.

Such instruction cars should be moved from one large city to another and the teachers in the schools should be contacted so that arrangements could be made for recruits to take a 10-day course any time during the year when the instruction cars happen to be in the city. The successful recruits would be accepted only at the end of the school year for railway duty if their attendance and scholarship had been satisfactory. This would please the school authorities and make the boys realize their responsibility to the school and the railway course of instruction.

Each recruit should be required to pass a medical test as well as a test on the work covered. His rating would be kept on file until he is placed on the extra board, preferably in his home city. The boys should be made to understand that seniority would be based on retained interest in continued training. In other words, the railways should go out and sell the railway idea to the youth of America.

D. P. McCALLUM

New Book . . .

Handbook for Model Railroaders by W. K. Walters. 210 pages, 9 in. by 6 in. Bound in cloth. Published by Kalmbach Publishing Co., Milwaukee 3, Wisconsin. Price \$3.

The book is a manual of general instructions for the scale model railroad fan who builds an accurately proportioned miniature railroad in his attic, basement or spare room. It is especially planned to be useful to the beginner. It is arranged to familiarize him with model practice, construction methods and terminology and to assist him in planning an interesting and practical model railroad system. It is also designed to be a reference book for the more experienced model builder. The book is illustrated.

Railroads-in-War News

Army Railroaders Use Motor Tow Boats

Their shipment by rail necessitates careful calculation of all clearances

To facilitate the movement of larger ships laden with military supplies, soldier railroaders of the Transportation Corps, Army Service Forces, are employing MTL's, motor tow boats, the value of which plainly was demonstrated in a three-day storm in the English Channel, shortly after D-day.

Six MTL's, manned by 22 T. C. men, were sent to France on June 6. A few days later, when a severe storm threatened to drive heavy invasion craft against a pier which was being used to supply the entire British battle area, the MTL's battled six-foot waves and succeeded in towing all ships out of the danger zone.

These boats are loaded aboard larger ships for transport overseas. The MTL's are 46 ft. long, 5 ft. 10½ in. wide, weigh 22 tons, and, loaded on flat cars, their height is 16 ft. 2 in. above the rails.

When, recently, Washington T. C. headquarters ordered 24 MTL's in wet storage at the Charleston port of embarkation, to be delivered to Baltimore speedily, the request was assigned to a "one-man office"—Capt. Alexander A. Whilldin, Jr., formerly clearance inspector for the P. R. R., whose

job it is to assure that out-size Army freight shipments will clear all railroad obstructions. Capt. Whilldin consulted his figures of clearances for all tunnels, bridges, rock cuts, etc., and planned a routing. Low flat cars were employed and the shipment went through in regular freight service to Richmond, Va., and thence by special train to Washington's Potomac yard. They were then operated over the emergency bridge across the Potomac and up to Baltimore, where it is reported, they were "inched past tight spots to the Locust Point piers."

The captain recalls that one particularly difficult assignment had been the shipment of invasion barges from New Orleans to the West Coast. Checking over clearance statistics for practically all the railroads in the West, he finally decided to place the barges on their sides in extra-long gondola cars, removing the ramp, control housing and some interior equipment. The shipment was thus routed to Portland, and the barges were used in the invasion of the Aleutians.

O. D. T. to Scrutinize Circuitous Routing

F. S. Keiser, associate director of the division of railway transport of the Office of Defense Transportation at Chicago, has been designated as the contact officer with whom railroads and shippers may handle cases of circuitous or burdensome routing. His authority covers domestic and export freight shipped by either civilian distributors or governmental agencies.

Transport Picture Better Than in '43

Rail, water, air and pipeline are contributing mediums with trucking off

Domestic transportation agencies are entering the fall traffic peak this year better prepared for capacity operation than at any time since the war began, according to "Domestic Transportation," a monthly industry report prepared by the Transportation Unit of the Department of Commerce's Bureau of Foreign and Domestic Commerce, which has heretofore not been made public. Rail, water, air, and pipeline transport have all participated in the improved situation now as compared with a year ago, the report indicates. The only medium of transportation presenting more of a problem today is motor transport, this problem stemming from a shortage of large-sized truck and bus tires.

The report states that weekly average carloadings in October are not expected to exceed those of October, 1943, by more than two per cent. Ton-miles will show an approximately equivalent increase, owing to the counter-balancing effects of a longer average haul and a reduced load per car. Intercity passenger carriers—railways, buses, and airlines—are faced with a steadily growing traffic demand, which may be accentuated by the movement of troops in connection with the final stages of the war in Europe, it is pointed out.

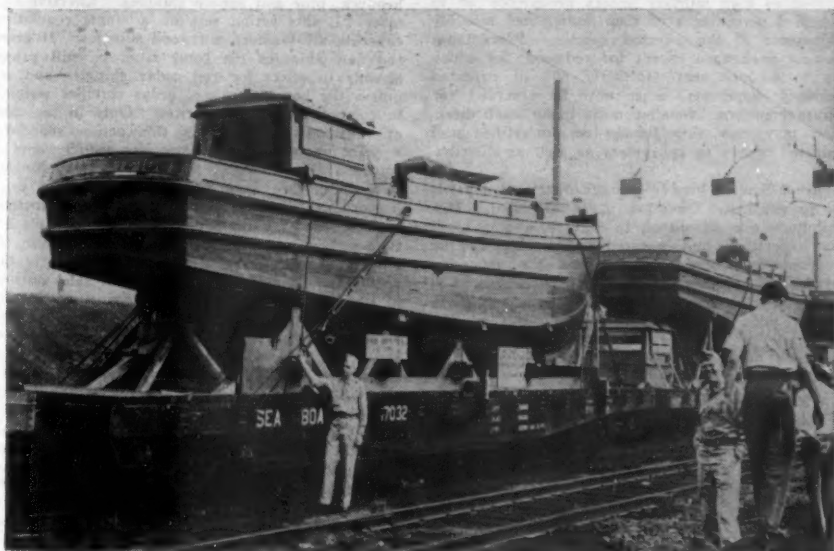
Great Lakes commodity transportation has been at record levels this year, the report states. The combined movement of coal, grain, and ore on the Lakes during the 1944 season to September 1 was higher than the previous record established in 1942. With the return by the Army of more than 100 planes during the past year, commercial airlines have been able to add new passenger routes and all-cargo services, as well as increase frequencies on many existing routes.

With regard to the future, the report suggests that the major problem looming ahead for transcontinental railroads and the great question-mark in the entire picture is the prospective shift in the scene of military operations. When the chief military effort is concentrated in the Pacific, domestic carriers will face new problems.

Booklet on Employing Women

The Office of Defense Transportation has announced the publication of a pamphlet entitled: "Practical Hints for Employers of Women with Special Reference to Transportation."

Prepared by Dorothy Sells and Cornelia



U. S. Army Photo

Capt. Whilldin Tests Tension of Cable Lashing Holding MTL Boat in Place on Flat Car

Capt. W. H. Schmidt, formerly associate editor of *Railway Age*, and now attached to Office, Chief of Transportation, Washington, D. C., smiles his approval from the lower right-hand corner.

Edge, chief and assistant chief, respectively, of the personnel supply section in the Division of Transport Personnel, the pamphlet is a compilation of the experience of a number of transportation companies that have employed women on a considerable scale as a result of wartime conditions.

Some of the subjects considered are: Methods of securing female labor; do's and don'ts for supervisors of women and for women employees; selection, training and placement of women employees; basic differences between men and women to be considered in employing women; and related subjects.

Asks Tight Control on Box Cars Placed for Loading

Pointing out that, in spite of all efforts that have been made to increase the supply of box cars available at this time of peak demand, the practice of placing cars for loading in excess of current requirements of many industries at many points is understood to be continuing, W. C. Kendall, chairman of the Car Service Division of the Association of American Railroads, has addressed an appeal to railway operating officers to give attention to individual situations where careful thought may suggest

how improvements may be made in the practice of placing cars for prospective loading.

If no box cars are placed for loading except on definite orders filed by shippers, he pointed out, a substantial amount of equipment now being held idle for a day or more will be released for general distribution.

Tie Pricing Regulations

Two minor changes for the purpose of clarification have been made in the regulation covering the pricing of eastern railroad ties, the Office of Price Administration has announced. The changes will be effective October 30.

One of the changes makes it clear that trucking charges may be added to the maximum prices only when delivery is made by the seller to a destination that is not a loading-out point for railroad ties and from which there is no further movement. In other words, the trucking addition may be made only when delivery is made to a point of final use. The other change specifies that a contractor's addition applies only to cross ties. Some tie contractors have interpreted this provision to include switch ties as well.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since October 16, and which are of interest to railways:

Gum Resin—Present ceiling prices for gum resin have been increased by 24 cents per 100 lb. under Amendment No. 1 to MPR 561, effective October 11. O. P. A. stated that this action is necessary to maintain and encourage production necessary for the effective prosecution of the war.

Metal Signs—Iron and steel in frozen, idle or excess inventories, and aluminum and magnesium, may now be used in the manufacture of metal signs, which heretofore was prohibited.

Hand Saws—Restrictions limiting the volume of production of special purpose saws, such as mitre box saws, cabinet and hack saws, compass and keyhole saws, were removed in an amendment to Schedule III of the hand tools simplification order, L-157.

Lanterns, Flares and Torches—Shipments of liquid fuel lamps and lanterns during the second quarter were 18 per cent higher than in the preceding quarter and 2 per cent higher than in the fourth quarter of 1943. Sixty-two per cent of the 121,424 railroad lanterns shipped in the second quarter went to commercial outlets, as compared with 69 per cent of the 122,803 total for the fourth quarter of 1943. Of the 13,387 railroad torches and flares shipped in the second quarter, 70 per cent went to commercial outlets, and 67 per cent of the 7,732 shipped in the fourth quarter of 1943.

Lumber—Certain species and grades of lumber, available at present in greater quantities than are needed by the military and by consumers placing certified orders, were released on October 16, through amendments to Directions 1 through 7 of L-335, to all users of lumber. Hardwoods and other species not controlled by Directions 1 through 5, and the output of small mills producing species covered by these directions may now be sold by mills on uncertified and unrated orders if such sale does not interfere with the filling of certified orders. Distributors may buy and sell this lumber in a similar fashion. Two factors are chiefly responsible for the excess of the present supply of certain species and grades over certified consumption, W. P. B. said. Class I consumers who are authorized to buy

specific quantities on certified and rated orders, buy the species and grades most suitable for their purposes. In some instances, claimant agencies have not been able to use the full amounts that they requested and which were authorized by W. P. B. in the third and fourth quarters of 1944. As a result the movement of lumber, particularly less desirable grades in small mills, has been slowed up, W. P. B. said.

Release of this lumber is necessary to prevent possible shut down of small mills which do not have facilities for drying and dressing and cannot afford to carry inventories, W. P. B. explained. Greater leeway in distribution will permit Class I consumers to buy lumber in addition to the amounts authorized. Directions 1 through 5 covers specified West Coast species and the western pine regions; California redwood; southern yellow pine; and red or yellow cypress. In each direction, mills over a certain size are required to give military orders precedence up to specified percentages of their anticipated monthly shipments of the affected species. Percentages remain unchanged except for redwood, for which up to 40 per cent (formerly 60) of expected monthly shipments, must now be reserved for military orders. Smaller mills under each direction may now ship lumber on uncertified and unrated orders to consumers as well as distributors.

Freer flow of lumber through distribution yards is provided by Direction 6, as amended. Distributors are permitted to receive and to sell, on uncertified and unrated orders, species not covered by Directions 1-5, and the following grades of species covered by Directions 1-5: No. 4 or lower grades of Douglas fir, southern yellow pine, western hemlock and Sitka spruce; E grade of Douglas fir and western hemlock; redwood dunnage and No. 3 or lower grades of cypress.

Distributors' sales on uncertified and unrated orders, however, are limited to those which will not interfere with filling certified orders. Moreover, distributors may sell on uncertified orders only the lumber they receive on uncertified orders. Culls and rejects may be sold by distributors on uncertified and unrated orders, provided the price is not more than 85 (formerly 75) per cent of the price allowed by the O. P. A. for the lowest standard grade of the same species. Direction 7 affects sawmills not covered by Directions 1 through 5. Formerly these mills were permitted to sell only to distributors on uncertified and unrated orders. They may now sell to consumers as well as distributors, if such

sale does not interfere with the filling of certified orders.

Steel Tubing—Retention of the present lead-time for delivery of tubing was recommended recently by the Tubing Industry Advisory Committee. Until future events change the situation sufficiently, scheduled productions and deliveries can be made generally within the lead-time period, industry members said. Tubing shipments during August amounted to approximately 90,000 tons. The carry-over, representing less than two weeks' production, reached about 40,000 tons. This is a favorable trend, since the amount of carry-over is expected to decrease, the government presiding officer said.

Prices

Fuel Oil—Specific ceiling prices have been established for fuel oil on the Pacific coast at the major levels of distribution. While the new ceilings, which became effective October 19, will cause some changes in existing prices of a few sellers, the general level of prices will remain the same. The ceilings, which were approved by the Petroleum Products Industry Advisory Committee for the Pacific Coast area, are the result of a thorough field investigation of prices by O. P. A. and cover the following sales by refiners and other distributors in Arizona, California, Nevada, Oregon and Washington: Tank wagon sales, truck-and-trailer deliveries, and tank car deliveries of P. S. (Pacific Specification) 200 fuel oil (Diesel and furnace fuel oils).

For the five states in the Pacific Coast area, tank wagon ceilings are established at the maximum prices of the "reference seller" (Standard Oil of California), while the truck-and-trailer ceilings will be three-quarters of a cent a gallon under the tank wagon maximum prices, and the tank car ceilings will be one cent a gallon under the tank wagon maximum prices.

Three exceptions are made to these ceilings and are as follows: (1) Sellers whose tank wagon maximum prices for P. S. 100 and P. S. 200 fuel oils have been higher than the maximum prices of the reference seller may continue charging the higher prices, provided they file with O. P. A.'s Los Angeles Office by November, 1944, a written statement showing their maximum prices and the basis in detail for determining them. This is to take care of cases where the maximum price of the reference seller was lower than the prevailing price in the October 1941 base period; (2) Specific dollar-and-cent maximum prices are established for tank wagon sales of P. S. 200 fuel oil to all purchasers in Seattle and nearby areas; and (3) Specific dollar-and-cent maximum prices are established for tank wagon sales of P. S. 100 fuel oil to all purchasers in Los Angeles and nearby areas.

Softwood Shingles—The western softwood shingles regulation, RMPP 164, has been revised to bring within its coverage redwood, fir, hemlock, pine and spruce shingles. Effective October 23, this action sets up a single regulation covering all Western softwood shingles. It gives the new shingles the same f. o. b. mill prices already in effect for red cedar shingles and requires the use of dry red cedar shingles weights in computing delivered prices. Only in the case of redwood shingles does this action represent a price increase, which amounts to 35 cents a square. Fir, hemlock, pine and spruce shingles have heretofore been priced under special pricing orders, but these prices have always coincided with red cedar shingle prices, so that today's action makes no change in their price level. A further change affecting redwood shingles is the requirement that delivered prices for sales outside of California shall be computed by using Seattle, Wash., freight rates and dry red cedar shingle weights. Formerly, Eureka, Calif., was the basing point. On eastern shipments, O. P. A. said, 28 cents of the 35 cents per square increase in the mill price will be offset by lower freight charges resulting from a reduction made in the authorized weight on which freight charges are computed and the establishment of a new basing point. Any price increase at the retail level on these shipments will be negligible. However, today's action provides that on shipments of redwood shingles to many California destinations, Eureka, Calif., will be the basing point as in the past. As a result, retail prices in California will reflect the increased mill price. These new delivered prices for redwood shingles will average no higher than the present prices for red cedar shingles delivered to the same points, O. P. A. said.

GENERAL NEWS

I. C. C. View on Post-War Traffic Outlook

Statistics bureau makes public its estimate of what the future holds

Ton-miles of revenue freight handled by Class I railways in 1947, 1948, and 1949 (assuming these to be the first three post-war years) will be substantially more than they handled in 1940, but not quite as much as in 1941, according to estimates developed in a study entitled "Post-War Traffic Levels," released last week by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. Depending upon what level of estimated national income is taken as a basis for calculation, freight traffic is estimated as between 433.5 and 482.4 billion ton-miles in 1947, between 447.6 and 496.4 billion ton-miles in 1948, and between 454.6 and 517.5 billion ton-miles in 1949. The actual figures for 1940 and 1941 were, respectively, 373.2 and 475.1 billion ton-miles.

Passengers at '40 Level.—Taking the most conservative basis of figuring, post-war freight traffic of Class I roads in 1947 is expected to be 35 per cent greater than the 1935-1939 level. On a similar basis revenue passenger-miles of all railways are estimated at 26 per cent above the 1935-1939 average. For the three post-war years under study, estimated passenger-miles exceed those of 1940 and, on the most optimistic national income assumption, those of 1941. A probable level of railway passenger traffic near, or slightly exceeding, the best years experienced in the 1929-1941 period, and "well above" the lows of 1932 and 1933 is indicated by these figures.

Depending again on the chosen level of estimated national income, passenger traffic is estimated as between 27.7 and 30.4 billion passenger-miles in 1947, between 28.4 and 31.1 billion passenger-miles in 1948, and between 28.8 and 32.3 billion passenger-miles in 1949, as compared with the actual 1940 and 1941 figures, 23.8 and 29.4 billion passenger-miles, respectively. (These figures were far below those of the war years, of course, the 1943 figure for Class I roads being around 87 billion passenger-miles.)

The 211-page report sets forth similar estimates of post-war traffic for other agencies of transportation, except that airlines are not included. It was prepared by Spurgeon Bell, head transport economist of the bureau, together with L. E. Peabody, principal transport economist, and Edward Kriz, associate transport economist. It has been made public "as information" as Statement No. 4440, and has not been considered or adopted by the commission.

Both Candidates Socialists in Seaway Views

Governor Thomas E. Dewey, who sharply criticizes President Roosevelt's friendliness to socialistic ventures into business by government, in competition with private enterprise, is revealed by Senator Aiken of Vermont as quite as much a socialist as his opponent—insofar as the St. Lawrence seaway project is concerned.

Aiken—another Republican advocate of this further large-scale tax-supported undermining of private investment in transportation and electric power—in an October 24 Detroit speech quoted messages from both Mr. Dewey and President Roosevelt strongly endorsing the billion-dollar St. Lawrence scheme for the further communization of the country's economy.

In addition to presenting estimates of possible levels of traffic in the early post-war years for the different agencies of transportation, the report reviews in considerable detail the methods that were used in developing them, along with supporting data.

Estimate of National Income.—Because it is well known that the volume of traffic depends on business conditions, and because there is probably no better indicator of general business conditions than the national income, the authors have devoted the first part of their study to an examination of economic factors regarded as having some bearing on the probable level of national income in the early post-war years.

The traffic estimates are based on three different levels of national income designated as A, B and C levels, the reason for setting forth these alternatives being the latitude of judgment involved in the assumptions, particularly as to post-war employment, on which the income forecasts are based. The highest, or A level, assumes that so-called full employment will be attained. The B level is based on a consensus of opinion of many government economists, while the still more conservative C level is otherwise described as the "business man's estimate." Stated in terms of 1939 prices, the estimated national income, in billions of dollars, for 1947, 1948, and 1949, is, as arrived at on the A level calculations, 108, 114, and 120, respectively; on the B level, 103, 107 and 110; and on the C level, 96, 100, and 102. (The actual figures for 1939, 1941, and 1943, were, respectively, 71, 92, and 120, in terms of 1939 prices.) Expressed in terms of 1943 prices,

(Continued on page 672)

Proposed Solution of Terminal Setup

I.C.C. examiner does not suggest additional joint rates in Manitowoc case

Arrangements for handling freight traffic at Manitowoc, Wis., will not be altered by requiring additional joint rates to be instituted, but charges accruing to the Chicago & North Western for terminal service performed for the Ann Arbor and Pere Marquette will be prescribed to afford it some compensation over and above normal switching charges, if the Interstate Commerce Commission follows the recommendations of Examiner William A. Disque, as set forth in his proposed report in No. 29030 and related proceedings.

The case grew out of a complaint by the Northwestern that the other two roads, which reach Manitowoc by car ferry across Lake Michigan, and their eastern and southern connections, refused to join in commodity rates on traffic to and from Manitowoc via the docks at that point, except where such rates already exist. This complaint in turn grew out of the serving of notice upon the car-ferry lines by the Northwestern terminating long-standing contracts under which all cars of revenue freight originating at or destined to Manitowoc and going onto or coming off the ferries at that point were to be moved by the Northwestern with its own power between the decks of the ferries and its freight house, team tracks, or sidings served by it, at a fixed charge to be paid by the ferry lines. In addition, the Northwestern provided all employees for handling freight for all the roads at the freight house, the ferry lines paying it their proportional share of such expense. However, each road involved has always been regarded by shippers and the public as an initial and delivering carrier serving Manitowoc, and shippers have been free to do business directly with any one of the three carriers, although the transportation service there has been performed entirely by the Northwestern.

Origin Carriers or Connections?—Under joint rates, the examiner pointed out, "the Northwestern would, as to all traffic involved, regard itself as the initial or delivering carrier at Manitowoc and would issue bills of lading and freight bills only under its own name. With the contracts canceled and no switching or terminal charges available, the ferry lines would be eliminated as carriers reputedly having terminal facilities at Manitowoc. They would be mere road-haul connections of the Northwestern at the docks."

The examiner explained that where joint

rates with the Northwestern via the docks have been in effect on certain limited kinds of traffic, the contract charges have not always been applied, as divisions were in effect. Also, the contract provided that as to traffic passing through Manitowoc, as distinct from that originating at or coming to that point, the Northwestern was to make no charge in addition to its line-haul rate or division for its service to or from the ferry docks.

The charges accruing to the Northwestern under the contracts were modified from time to time, being set at \$7.50 per car effective March 28, 1938, except as to l. c. l. traffic, on which a lower charge prevailed. The charges have never been published in tariffs, "apparently because they were not open to the public, but represented merely operating agreements between the carriers." The C. & N.W. argued the commission has no power to revive the contracts. It asserted that the ferry lines have no terminals of their own at Manitowoc and are not entitled to be recognized as reaching its terminals. So far as they are concerned, it contended, Manitowoc is only a junction point, and the services of the Northwestern and the ferry lines should be regarded as road haul from the technical standpoint of rates and divisions, with the result that the movement of traffic through the docks should be at joint rates, "out of which it seeks divisions yielding it much additional revenue, just as though it performed a road haul instead of merely a terminal service."

The ferry lines contended that, in the absence of a convincing showing as to the switching costs at Manitowoc, no finding should be made that the Northwestern's revenue on this traffic should be increased. The Northwestern saw no reason for performing the terminal service at a mere switching or terminal charge, and took the position, according to the examiner, that the ferry lines' tariffs were "defective and unlawful" because they were for application from and to points they do not actually serve, but which they reach by hiring the Northwestern to do the service at an unpublished charge.

More Money for C. & N. W.—"The main question here is whether there should be a full line of joint rates," the report stated, "and if so what the Northwestern should get out of them for its terminal service at Manitowoc. Ordinarily, when a carrier performs switching it does not participate with the connecting road-haul carriers in joint rates, but generally gets only a published switching charge which is paid and absorbed by the road-haul carrier. That is substantially the situation here as to traffic not moved on joint rates, except that the charges are not tariff charges."

The Northwestern's published switching charge for general application at Manitowoc is \$4 per car. The ferry lines subsequently filed a cross complaint with the commission alleging that failure to apply that charge to and from the docks constituted discrimination by the Northwestern against them. This complaint the examiner would dismiss. As to the Northwestern's complaint, he recommended that the commission should find that the failure of the

ferry lines to provide the new joint rates it desired was not unreasonable, but that the terminal charges accruing to the Northwestern were unreasonably low, in view of the service performed. Charges to be published in a tariff for absorption by the ferry lines of \$16 per car on carload traffic and \$12 a car on l.c.l., so far as existing joint rates are concerned, should be prescribed, he recommended, and reparations should be awarded. "If the tariffs of the ferry lines are unlawful they should be corrected," he said, "but the rates of the ferry lines are or may be published from and to the points of connection at the Manitowoc docks and the ferry lines can absorb tariff charges of the Northwestern for its service at Manitowoc."

Berge Sees Farmer Benefiting from Rail Anti-Trust Suit

Assistant Attorney General Wendell Berge undertook this week to interpret the government's anti-trust suit against the railroads in terms of prospective benefits to the farmers. Speaking on October 25 before the Wisconsin Farmers Union Convention at Chippewa Falls, Wis., he listed "those obstacles placed in the way of transportation" among the "major barricades which must be removed from our economy."

The assistant attorney general told the farmers that "great agricultural areas can be made or broken by the freight rate pattern," proceeding to assure them that in bringing the anti-trust suit the Department of Justice was on the trail of "rate fixing, the making of discriminatory rates, and the attempt to control competing forms

of transportation." Mr. Berge has noted that there has apparently been "a great deal of misconception about this suit," so he made what he apparently intended would be considered a clarification.

Says He's Not Knocking I.C.C.—What the suit does not represent is an attack on the wartime performance of the railroads or on the Interstate Commerce Commission, he said. "The action," it appears, "was brought at this time because as a matter of economic preparedness for the reconversion period, we think that it is imperative that the barrier of collusive rates which we charge to exist should be removed so that private industry will have a chance in the period which lies ahead." It was also brought "because, as the complaint charges, the railroads have set up a private mechanism the purpose and effect of which was to keep the Interstate Commerce Commission from having the opportunity of passing on lower rates." No complaint against the commission because it reviews "less than one per cent of the rates which are filed with it"; for "it is difficult to see how it could assume any greater burden."

Presenting his bill of particulars, the assistant attorney general went on to highlight other charges against the railroads, mentioning the complaint's attack on the former Western Agreement, and detailing various items from a memorandum wherein the Traffic Department of the Association of American Railroads reported on its activities in promoting or preventing various actions by the carriers. Selecting an example calculated to appeal to his



Some of the Former Railroaders Who Direct the Work Along the Bengal & Assam Railway

(Seated, left to right): Division Superintendents Lt. Col. William P. Wilson (C. B. & O.); Lt. Col. Harvey B. Pilcher (Wab.); Director of Military Railway Service (China-Burma-India Theatre), Brig. Gen. Paul F. Yount; Superintendent of Transportation, Lt. Col. Alva C. Orr (T. & P.); Deputy Director of M. R. S., Lt. Col. Porter E. Turner (S. P.). (Standing, left to right): General Shop Superintendent, Lt. Col. Clarence V. Conliak (A. T. & S. F.); Division Superintendent, Lt. Col. George R. Branch (C. R. I. & P.); General Superintendent, Lt. Col. Stanley H. Bray (S. P.); Engineer of Track and Structures, Lt. Col. Herbert B. Hoyt (B. & O.); Division Superintendents, Lt. Col. Karl F. Emmanuel (N. Y. C.), and Maj. James M. Aydelott (C. B. & O.).

farm audience, Mr. Berge charged that the Commissioner of Western Railroads on one occasion "put his foot down" and thereby prevented reductions in rates which some of the interested railroads were willing to make in order to move an unusually heavy Western peach crop before spoilage. "Apparently it was much more in the public interest that the peaches should rot under the trees than to move them to market at emergency rates," was Mr. Berge's clincher.

Wage Increase for Employees of National of Mexico

A wage increase of 45 pesos a month has been granted all employees of the National Railways of Mexico, effective September 1, 1944, partly to offset the higher cost of living now prevailing in Mexico as a result of the war. The wage advance increases the total payroll about 30,000,000 pesos a year. When the increase was granted, there were before the labor courts approximately 200 wage demands, but they were all rejected when the general increase was granted.

1944 Bus Production

Manufacture of 3,587 integral buses during the first three quarters of 1944 has been announced by the War Production Board. Integral buses are those built with the chassis and body as one unit. The production represents 80 per cent of the 4,488 buses originally scheduled for the first three quarters. The 10 manufacturers currently in production estimated that a total of 5,400 buses will be produced during the entire year of 1944, as compared with 6,700 buses scheduled at the beginning of 1944. This estimate is based on the number of components available for integral buses, it was explained.

Of the 3,587 buses produced during the first three quarters, 3,237 have been delivered to purchasers whose needs have been approved as essential by the various claimant agencies, the Office of Defense Transportation and the Canadian Government, the announcement stated.

It was indicated that no determination of WPB quotas for 1945 production would be made until January 1, 1945. Manufacturers had forecast that approximately 11,500 buses would be produced during 1945, against an approved program of 10,392 buses.

Block System Recommended After Head-end Collision

Following a head-end collision September 3 on the Chicago, Rock Island & Pacific about 6 miles east of Norton, Kan., which is 129 miles west of Belleville on the Omaha-Colorado Springs main line, the Interstate Commerce Commission, in a report of an investigation conducted under the supervision of Chairman Patterson, has recommended installation of "an adequate block system" in the territory involved.

The immediate cause of the accident was found to be failure to deliver a meet order. It occurred on a single-track line where trains were operated by timetable and train orders, together with a manual-block system for following movements only. The trains involved were a 39-car westbound extra freight and First No. 96, an east-

Dewey Questions Flynn's Merits as Labor Lawyer

Governor Thomas E. Dewey, Republican candidate for the presidency, in an address at Pittsburgh, Pa., on October 20, criticized President Roosevelt for his seizure of the railroads in the face of a strike threat last winter, in view of a statement by three leaders of the brotherhoods involved in the wage dispute that satisfactory settlement could have been reached under the railway labor act "if the Administration had kept its hands off."

The Republican nominee also questioned the choice by the train service unions of Edward J. Flynn, Democratic boss of the Bronx (N. Y.), as their attorney in their wage case, suggesting that the selection was "forced" by the advisability of having a lawyer "who knew his way up the back stairs of the White House"; a service for which, said Mr. Dewey, Mr. Flynn charged the railroad unions \$25,000.

Replying to Mr. Dewey's strictures, Mr. Flynn characterized his fee as "extremely moderate" and denied that his retainer was political in character. Whereupon, Herbert Brownell, Republican national chairman, produced what he said was the wording of a telegram from leaders of the Big 5 unions, dated October 1, 1943, in which they sought Mr. Flynn's services in arranging for them a conference with the President. If Mr. Flynn did not take this proposal up with the President, said Mr. Brownell, "then he disappointed his clients. Few people will believe Flynn was retained, as he says, for 'the preparation of graphs and tables'."

bound second-class passenger train made up of a troop-sleeping car, six Pullman tourist cars, one standard Pullman, one kitchen car, two head-end cars and a caboose. The accident occurred at 6:40 p. m. in clear weather, but visibility was restricted by track curvature and vegetation. The freight train was moving about 30 m.p.h. and the passenger train about 25 m.p.h. when they collided. Both locomotives, the first seven cars of the freight train and the first five cars of the passenger train were derailed and damaged, and 47 passengers and 10 employees were injured.

At Selden, the last open office west of Norton, First No. 96 received a train order directing it to meet the westbound extra freight at Almena, a station 11.5 miles east of Norton. The freight train received this order also, but at Prairie View, 8.2 miles east of Almena and the last open office east of Norton, it received a later order directing it to meet First No. 96 at Norton instead of Almena. The same order was sent to Norton to be delivered to First No. 96. The rules in effect required the operator at Norton under these circumstances to give stop signals with a red flag to the train concerned and, before delivery of the train

order and clearance form was authorized, to notify the dispatcher that the train had been stopped.

Same Signal for Block and Orders.

The operator at Norton had placed the train-order signal in stop position to protect an earlier eastbound train before he received the order intended for First No. 96 from the dispatcher. When notified that the preceding train had cleared the block he changed the signal to display a proceed manual-block indication, forgetting that it should continue to display stop for delivery of the order to First 96, and thus unintentionally caused the signal to display a proceed train-order indication. First 96 passed the station on the authority of this signal indication before the operator could take any action to stop it. "If one signal for train orders and another signal or a form for the manual block had been provided," the report observed, "the oversight in the clearing of the train-order signal would not have occurred." Continuing, it pointed out that "the manual-block system used on this line applies to following movements only. There is no provision for the blocking of opposing movements. If an adequate block system had been in use, these opposing trains would not have been permitted to occupy the same block simultaneously, and the accident would not have occurred."

A. A. R. Engineering Research Under New Committee

As a result of a recent reorganization approved by the General committee of the Engineering division of the Association of American Railroads, and Vice-President C. H. Buford of the A. A. R., the research work of the division, formerly under the direction of a committee consisting of the chairman of the division and one representative each of the Construction and Maintenance section, the Signal section and the Electrical section, is now under the general supervision of a new committee consisting of H. R. Clarke, chief engineer of the C. B. & Q., chairman; B. R. Kulp, chief engineer of the C. & N. W.; and W. H. Penfield, chief engineer of the C. M. St. P. & P.

The purpose of this reorganization, with the personnel of the new committee made up from among engineering officers located in Chicago, was largely to provide a committee with which G. M. Magee, research engineer of the division, can confer readily whenever circumstances require.

I. C. C. Finds United Stockyards Corp. Not a Carrier

Acting on an application filed by the United Stockyards Corp. for approval of a security issue, and a simultaneous motion that the application be dismissed for want of jurisdiction, Division 4 of the Interstate Commerce Commission has dismissed the application on the ground that the company is not engaged in transportation by railroad as a common carrier and does not propose so to engage, hence is not subject to the commission's jurisdiction under section 20a of the Interstate Commerce Act.

The carrier service performed by United Stockyards, the division held, "is limited to the loading and unloading of livestock

by lessees and the applicant is not engaged in general transportation service to the public as a common carrier." United owns a majority of the capital stock of several stockyards companies, and will acquire and operate various other stockyards, but the livestock loading and unloading facilities owned by these stockyards companies have been or will be leased to certain livestock handling companies, the report pointed out.

In separate reports and orders, the division at the same time approved a number of arrangements for the lease by various subsidiary livestock handling companies controlled by United of the livestock loading and unloading facilities of a number of stockyards controlled by United, thus authorizing the segregation of the so-called railroad facilities of the stockyards under separate corporations subject to the commission's jurisdiction and accomplishing the relief of the stockyards operating companies from dual control, particularly as to accounting and taxation, by the commission and the Department of Agriculture, the latter being exercised under the provisions of the Packers and Stock Yards Act.

Freight Traffic Management Class Begins Study

The Traffic Managers Institute of New York has announced a new class in freight traffic management, which began October 19, 7:30 p. m., at 1715 Chestnut street, in Philadelphia. Director of the course is John C. White, chief clerk in Philadelphia, for the Chicago & North Western.

This is a 12-months' course embracing all phases of railroad and industrial traffic management, a complete study of freight tariffs and rates in all rate territories, classification and exceptions, routing, tracing, claims, switching, transit diversion and reconsignment, storage, demurrage, etc. Students completing the course are qualified rate clerks. Further details may be had from the Traffic Managers Institute, 154 Nassau street, New York 7, N. Y.

Carriers' Post-War Position Is Uncertain, Says O'Shaughnessey

The problem of post-war railroad business is based upon many imponderables, including wages, taxation and competition, T. J. O'Shaughnessey, public relations officer of the Chicago, Rock Island & Pacific, declared before a meeting of the Northwest Shippers Advisory Board at Fargo, N. D., on October 20. He pointed out that while the railroads are carrying the greatest volume of traffic in history at unprecedented speeds, the wear and tear on plant and rolling stock is in proportion and that because of shortage of men and materials, no substantial replacements, or improvements have been possible since the war began.

"Unless some provision is made," he said, "to allow the railroads to retain part of their present operating income in reserves to carry out an adequate rehabilitation program when materials and labor become available, there may be difficulty in meeting post-war transportation needs. Under the present system, the money that should be spent, if materials and man-power were available, is considered as profit, and is

taxable and as a result no adequate provision can now be made for replacing equipment that is wearing out at greatly accelerated speed.

"The railroads are proud that they have done a great job in this war. They are especially proud that they have done it in the American way—with private funds, privately spent. No government funds were spent to expand this industry for its war job.

"The roads are now contributing about 5 million dollars a day in taxes, contrasted with the last war when the roads, because they had been taken over by the government, not only were not a source of tax revenue for the government, but required many millions of government funds to take care of their operating deficits."

Neal Named to Transportation Equipment Committee

W. M. Neal, vice-president, Canadian Pacific, has been appointed Canadian representative on the Transportation Equipment Committee of the Combined Production and Resources Board, replacing R. A. C. Henry, who recently was appointed chairman of the newly-formed Air Transport Board.

The Transportation Equipment Committee has a membership of three, representing the United States, Great Britain and Canada. Brig. Gen. C. D. Young, deputy director of the Office of Defense Transportation, is the U. S. representative and chairman of the group, and Gen. Sir Walter Venning, director general of the British Ministry of Supply in America, represents Great Britain.

New Jersey Sues Railroads for \$12,009,788 Tax Interest

The State of New Jersey has filed suits in the state supreme court to collect \$12,009,788 in tax interest claimed to be due from five railroads. The amounts claimed from each railroad are as follows: Delaware, Lackawanna & Western, \$3,746,493; Erie, \$3,008,767; Lehigh Valley, \$3,172,464; New York Central, \$1,931,934; and Reading, \$150,130. The suits result from a recent decision of the state court of errors and appeals outlawing the 1941 and 1942 railroad tax compromise legislation which waived interest payments totaling \$24,000,000 on back taxes assessed against the railroads and permitted the payment of \$34,000,000 of principal amount in installments.

Power Brake Hearing Ordered

The Interstate Commerce Commission has assigned its No. 13528 proceeding, concerning the application of power brakes to freight cars, for hearing before Chairman Patterson at the Morrison Hotel, Chicago, on December 19 at 10 a. m. This action grew out of a prehearing conference held at Chicago on September 6 and 7 and a subsequent request that a hearing be held which was made by the Brotherhood of Railroad Trainmen.

The hearing is for the purpose of receiving evidence, first as to the adequacy and propriety of the proposed specifications for power brakes, second as to what classes of equipment, if any, will be exempted from an

order requiring the installation of such appliances, and third as to the date upon which installations should be completed. As noted in *Railway Age* of August 5, page 247, the commission served a show cause order on the railroads requiring returns to the proposal that certain specifications should be prescribed by the commission and that installations complying with these specifications should be completed by January 1, 1946.

These returns and the prehearing conference developed a general agreement, except by the B. of R. T., as to the "adequacy and propriety" of the proposed specifications, which are in general identical with those of the Association of American Railroads for AB brakes. Many carriers urged, however, that certain equipment scheduled for early retirement or restricted as to use should not be subject to an order requiring power brake installation, and suggested that additional time beyond the end of 1945 would be required to install such appliances on all cars used in freight service.

As to the proposed time limit, the commission, in setting the hearing date, pointed out that a date for completion generally of the installation of power brakes should be fixed, subject to extension for good cause shown later, in individual cases. It is not intended, therefore, that individual roads will be heard at that time as to the periods to be allowed for completion of their respective installation programs.

Will Ask Reconsideration on Multiple-Loading Rule

Having advised the Interstate Commerce Commission of their intention to file a petition for reconsideration of the issues by the whole commission, the railways respondent to the commission's I. & S. No. 5268 proceeding, involving the application of Consolidated Freight Classification Rule 33, the so-called multiple-loading rule, have asked for a postponement of the effective date of the recent Division 2 order in the case (reported in *Railway Age* of October 21, page 633) to afford them time to proceed with the petition and to simplify the preparation and publication of classification supplements.

September Operating Revenues Up 1.7 Per Cent from 1943

From preliminary reports of Class I railroads representing 81.3 per cent of total operating revenues, the Association of American Railroads has estimated that the September gross totaled \$641,940,057, an increase of 1.7 per cent over September, 1943's \$631,250,923. Estimated September freight revenues were \$473,456,546, compared with \$467,677,219, an increase of 1.2 per cent. Estimated passenger revenues were \$123,326,811, compared with \$119,119,038, an increase of 3.5 per cent.

Pullman Pays \$200,917 for Suggestions Since 1941

A total of \$200,917 has been paid employees of the Pullman Company for 15,000 suggestions adopted during the period from March 1, 1941, to September 16, 1944, in which its employees' suggestion system has been in effect. Approximately 100,000 ideas

LIMA-BUILT 4-8-4 LOCOMOTIVES FOR "HOT-SHOT" FREIGHT SERVICE!

The building of a large postwar volume of L. C. L. freight traffic will depend on prompt deliveries and economical operation. This in turn means that the railroads which go after this business must be equipped to haul freights on passenger train schedules.



Lima super-power 4-8-4s are expressly designed to give such service. These are the locomotives that power the Southern Pacific "Overnights," on the Los Angeles-San Francisco run. They are the same locomotives that speed the famous "Daylights." The Southern Pacific now has a fleet of 60 of these Lima 4-8-4s. They will win traffic for any railroad.



LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO

were submitted. July of this year was the peak month in the number of suggestions receiving approval and cash awards, the total being 694. The largest number of awards credited to an individual is 83, while several others have accumulated more than 50.

Alleged Irregular Practices Result in Fines

Secretary W. P. Bartel of the Interstate Commerce Commission has made public advice received by the commission of court action on October 18 in certain cases investigated by its Bureau of Inquiry. The Gulf, Mobile & Ohio was fined \$100 on each of ten counts in an information charging it with having granted to consignees at Bogalusa, La., credit for freight charges for periods in excess of the prescribed time limit, following its plea of *nolo contendere* in the federal district court at New Orleans.

Fines of \$5,000 against the Norfolk & Western and of \$2,000 against the Southern were imposed in the federal district court at Norfolk, Va., on pleas of *nolo contendere* to informations charging them with having granted concessions growing out of the rebilling at Suffolk, Va., and Holland of shipments of land plaster which had originated at Plasterco and Saltville and were originally intended for transportation to points in North Carolina. As a result of the rebilling practice, the lawful through interstate rates were defeated to the extent of the difference between those rates and lower combination rates based on intrastate local rates to the rebilling points and interstate local rates beyond, the memorandum explained. The recipients of the concessions also were fined.

New Zealand Railways Report Record Traffic in 1944

Handling a volume of traffic greater than ever before in their history, the New Zealand Railways, for the financial year ended March 31, showed an increase in gross revenue of £15,325,306, or 8.47 per cent over the preceding year. The net revenue of £2,567,970, however, represented a decrease of 9.15 per cent, compared with the previous year. This, the report pointed out, was a "satisfactory result," taking into account the large provision for deferred maintenance which amounted to £410,500.

As the Minister of Railways, R. Semple, explained this latter provision: "During the war period, the extraordinarily heavy volume of traffic has meant abnormal wear-and-tear on the rolling stock, track and equipment—generally, while the shortage of material due to war requirements, coupled with the difficult manpower situation has necessarily meant that less renewal and replacement work could be done than would have been the case in time of peace. In such circumstances it is better, while railway finance is buoyant, to charge to working expenses an amount estimated to meet maintenance expenditure which would have been incurred but for wartime conditions rather than to make a more favorable showing for the present and load such costs on to the post-war period."

Regular passenger traffic totaled 18,317,323 trips, an increase of 6.67 per cent above the previous year, and tonnage hauled set

a new record at 9,026,626 tons, an increase of 1.56 over 1943.

Revenue from military fares and freights showed "substantial increases," with fares from this source providing 34 per cent of total passenger revenue and with military freight representing over 9 per cent of total freight revenue. But, it is noted, that with the war moving "farther and farther from New Zealand," a substantial decrease in military fares and freights "must be expected."

The report shows there has been an improvement in labor supply, with the return to railway duty of the 16th and 17th railway operating companies, which had "given splendid service overseas." There are still 5,440 railwaymen in the armed services, however, and the staff is still short of its pre-war strength by 2,123, or 8.24 per cent.

Pass System Liberalized by Jersey Central

The new 1945-1946 Jersey Central passes, bearing the railroad's new Statue of Liberty emblem, have been liberalized, now being uniform and applying to all classes and crafts.

Under the new rules, an employee with 2 to 4 years' service is entitled to a pass on the division on which he works, those with 5 through 9 years' service being eligible for a system pass. Under the old rules, an employee with less than 10 years' service was entitled only to a pass for transportation between his residence and place of employment. This particular rule still applies for those with less than 2 years' service.

An employee with 10 to 19 years' will still receive a system pass for himself and his wife, and an employee with 20 or more years' service remains eligible for separate system passes for himself and his wife.

Another recent liberalization gave retired employees the privilege using the same type pass they held on retirement.

Development of Foreign Trade Post-war Must, Says Metzman

One of the greatest opportunities for expanding transportation after the war lies in the development of foreign trade, New York Central's president, Gustav Metzman, told the Foreign Commerce Club at the Hotel Astor, October 18.

"In the development of this traffic," he stated, "the New York Central, which has a vital stake in the Port of New York and in other eastern ports, plans to take an important part and is making this a number one job in its post-war planning."

Observing that for more than a century the New York Central has "participated liberally in the export and import traffic, both freight and passenger," President Metzman believes that the future for this traffic looks "especially bright."

"As part of our program to serve this new foreign commerce market," he went on, "we have recently taken action to strengthen our organization in the handling of foreign traffic. Our appointment of a foreign freight traffic manager for our railroad system, (Arthur E. Bayliss, *Railway Age*, October 21, page 640) was recently announced and we shall take other steps to anticipate and to meet our responsibilities." Other carriers,

he noted, are taking similar steps, "all pointing to maximum service in foreign traffic in post-war years."

Mr. Metzman also looks for improved transportation after the war, predicting that "shippers will be looking for the best service at the lowest cost," that "travelers will want new and fast methods of travel." He is optimistic that the railroads will be able to supply these requirements, but suggests there "must be new vision, new hard work, new resourcefulness, and in some cases, new leadership to meet the changing business and competitive conditions of the years ahead."

Freight Car Loading

Loadings of revenue freight for the week ended October 21 totaled 905,941 cars, the Association of American Railroads announced on October 26. This was an increase of 7,291 cars, or 0.8 per cent, above the previous week, an increase of 522 cars, or 0.1 per cent, above the corresponding week last year, and an increase of 2,679 cars, or 0.3 per cent, over the comparable 1942 week.

Loading of revenue freight for the week ended October 14 totaled 898,650 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For the Week Ended Saturday, October 14			
District	1944	1943	1942
Eastern	164,646	171,990	162,592
Allegheny	191,168	192,546	183,486
Pocahontas	54,552	56,115	54,724
Southern	126,108	123,626	126,544
Northwestern	140,051	149,320	148,445
Central Western	146,059	142,640	145,483
Southwestern	76,066	76,111	79,977
Total Western Districts	362,176	368,071	373,905
Total All Roads	898,650	912,348	901,251
Commodities			
Grain and grain products	49,997	61,474	50,463
Live stock	26,214	27,238	24,476
Coal	174,646	176,555	164,220
Coke	13,981	15,156	14,201
Forest products	43,001	45,109	48,472
Ore	66,737	78,266	75,807
Merchandise l.c.l.	109,086	104,207	90,962
Miscellaneous	414,988	404,343	432,650
October 14	898,650	912,348	901,251
October 7	877,942	906,357	909,250
September 30	912,999	910,644	907,286
September 23	898,667	907,311	897,427
September 16	892,358	902,766	903,099

Cumulative Total, 42 Weeks .. 35,197,525 34,237,743 34,957,611

In Canada.—Carloadings for the week ended October 14 totaled 70,383, as compared with 78,270 for the previous week, and 66,797 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
Oct. 14, 1944	70,383	37,371
Oct. 7, 1944	78,270	37,804
Sept. 30, 1944	77,184	38,909
Oct. 16, 1943	66,797	40,303

Cumulative Totals for Canada		
Oct. 14, 1944	2,870,746	1,573,096
Oct. 16, 1943	2,695,429	1,641,179
Oct. 17, 1942	2,654,087	1,393,368

Dispatchers Elect Officers

J. G. Luhrsens was re-elected president of the American Train Dispatchers' Association at the annual meeting of the union at Chicago last week and simultaneously was granted a leave of absence so that he can continue to serve as executive secretary—

MORE POWER

... FOR



4-8-4's



Franklin Type "E" BOOSTERS GIVE INCREASED CAPACITY

The Soo Line has applied Franklin Type E Boosters to its 5000 Class 4-8-4 locomotives and thereby gained a substantial increase in capacity.

The additional power provided by the Franklin Booster permits the hauling of heavier trains over the severe grade out of Minneapolis.

On the road the Booster aids the lo-

comotive in maintaining its schedule by furnishing extra power to move in and out of sidings, to accelerate quickly to road speed, and for other grades and tight-spots.

These advantages can be secured by any railroad through the application of Franklin Type E Boosters to its locomotives.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

October 28, 1944

treasurer of the Railway Labor Executives Association. O. H. Braese, secretary-treasurer of the union and a dispatcher of the New York Central at Yonkers, N. Y., was elected president to serve in the absence of Mr. Luhrsen. Other officers elected were: Secretary-treasurer, J. B. Springer, vice-president of the union and a dispatcher of the Baltimore & Ohio at Baltimore, Md.; western vice-president, D. M. Geil of the Western Pacific at Sacramento, Cal.; eastern vice-president, Claud S. Matthews of the Pennsylvania at Indianapolis, Ind.; and southern vice-president, J. B. Titler of the St. Louis-San Francisco at West Plains, Mo.

September Ton-Miles

The volume of freight traffic handled by Class I roads in September amounted to approximately 61,000,000 ton-miles, according to a preliminary estimate based on reports received by the Association of American Railroads. The decrease under September 1943 was two and one-half per cent.

Class I roads in the first nine months of 1944 performed three per cent more revenue ton-miles of service than in the same period of 1943. The 1944 total was 20 per cent greater than 1942 and 2½ times that of the first nine months in 1939.

The following table summarizes revenue ton-mile statistics for the first nine months of 1944 and 1943:

	1944	1943	Per cent Increase
First 7 months	431,273,490,000	413,674,358,000	4.3
August	64,500,000,000	63,103,271,000	d0.9
September	61,000,000,000	62,545,917,000	d2.5
9 months total	556,773,490,000	541,323,546,000	2.8

* Revised estimate
† Preliminary estimate
d Decrease

Holds Pullman-C. N. R. Agreement Is Not Pooling

An agreement between the Pullman Company on the one hand and the Canadian National and its affiliates, the Grand Trunk Western and Central Vermont, on the other, concerning the furnishing of sleeping car service over the lines of the Canadian National and its subsidiary roads is not a contract for the pooling or division of traffic, service or earnings within the meaning of section 5(1) of the Interstate Commerce Act, Division 3 of the Interstate Commerce Commission has found, basing its conclusion primarily on the lack of competition between the parties:

Examiner Is Reversed—The case came before the division in the form of an application filed by Pullman for approval of the agreement, that company being in doubt as to the applicability of section 5(1) under the circumstances. Docketed as No. 29040, the proceeding followed the usual course, and a proposed report by Examiner Charles W. Berry, recommending a finding that the agreement does contemplate pooling, was issued, as noted in *Railway Age* of March 18, page 577. The examiner not only concluded that the agreement was subject to the commission's jurisdiction, but he recommended that it should not be approved because its terms were, in certain respects, what he

called "without decisive force and effect," and because it did not, in his opinion, meet the better service or operating economy requirements of section 5(1).

The agreement is, in effect, a continuation of an arrangement under which Pullman had provided sleeping car service over the lines of the Grand Trunk before that carrier became, in 1923, a part of the Canadian National system, its unusual features arising from the fact that it was designed to meet a situation where Canadian National is providing its own sleeping car equipment and service on certain lines, but is continuing to use Pullman's facilities on others, where they were in use before the consolidation was effected.

Incorporated in the agreement is an arrangement for equalizing the mileage of cars of each company operated in the territory of the other, it being provided that former Grand Trunk territory is Pullman territory, that the lines served by the railroad with its own sleeping car equipment constitute railway territory, and that a zone of overlapping in which both companies may operate is considered dual territory. A car mileage "equalization account" is set up to secure a balance of mileage by offsetting operations where one company's cars are operated in the other's territory, in either joint or special movements, this being accomplished under a clause to the effect that "the party owing such car mileage shall assign to the other party the earnings from an all-year sleeping car run until the car-mileage of that run will offset the mileage due; the expenses of the operations of the lines so assigned are to be borne by the owning company."

"Pooling" Defined—The division held that neither the contract as a whole nor any of its provisions constitutes pooling within the meaning of section 5(1). "A 'pooling contract' in railroad nomenclature is almost a term of art," its report stated. "It connotes the existence of competition between the parties to the contract." Insofar as the agreement refers to the mutual obligations of Pullman to supply sleeping cars, and of the Canadian National to furnish transportation of such cars, there is no competition between the parties, it observed. "Each provides a dissimilar but complementary service which together constitute sleeping car transportation service," and no pooling is involved. If the commission has jurisdiction over the mileage adjustment provisions which arise out of the railroad's operation of its own sleeping cars it must be on the basis that such sleeping car service is competitive with the service it provides with Pullman's facilities, the report continued, but "in this respect there is no free competition between the two which this contract eliminates."

As to the arrangement for mileage adjustment and assignment of earnings, the division concluded, "the indicia of a pooling or commingling or division of earnings are not present."

Examining the question whether the modifications of the law concerning pooling which were brought about by the Transportation Act of 1940 broadened its applicability so as to include contracts where no competitive conditions are involved, the

division held that the intent of Congress has not changed, since, although the phrase "different and competing" carriers was omitted in the amended statute, "the word 'pooling' itself contemplates a competitive relationship between the parties to the pool." Therefore, it concluded, "the provisions of section 5(1) which were primarily designed to protect competition in the transportation field are still so designated and are thus limited. There must be competition between the carriers involved in order to activate the statute. This is not present under the instant contract, and we are, therefore, without jurisdiction in the premises."

Hospital Benefits Now Available to 17,000 N. Y. C. Employees

More than 17,000 employees operating in the New York area of the New York Central System are being given an opportunity to enroll in the Associated Hospital Service of New York, and posters and detailed literature describing the benefits available are now being distributed. Enrollment will extend to November 15.

Through the co-operation of N. Y. C. executives, departmental restrictions, that heretofore made enrollment difficult for the majority of employees, have been lifted and membership now becomes available to all.

More than 100,000 employees and 150,000 dependents, representing 80 railroads throughout the country, are now enrolled in similar plans.

I. C. C. Calls for Arguments on a Tariff Interpretation

Because important questions relating to tariff construction and interpretation are involved in its No. 28552 proceeding—docketed as *Swift & Co. vs. Alton Railroad et al.*—the Interstate Commerce Commission has set the case for reargument before the commission at a future date to be determined. Meanwhile, "in order to focus attention upon the problems presented in this proceeding and the solutions which have been proposed as they may affect the general principles of tariff construction and interpretation," it has issued a notice summarizing the points as to which it is desirous of hearing further argument, making public at the same time two examiner's proposed reports representing different points of view as to the issues involved.

The case grew out of Swift's complaint that rates charged it on certain shipments of fresh meats in carloads, and in mixed carloads with packing-house products, from Sioux City, Iowa, South Omaha, Neb., South St. Joseph, Mo., and Kansas City, Kan., to Cincinnati, Ohio, were inapplicable. The question of tariff interpretation involved is whether the rates applicable were combinations of proportional commodity rates contained in separate tariffs applying to and from specified east-bank Mississippi river crossings, or the joint commodity rates published by the carriers from the same origins to Louisville, Ky., these latter rates being subject to a destination intermediate-point rule.

Which Rate Basis Applies?—The railroads contended that the combinations were applicable. The use of the aggregates of

**EFFICIENT USE OF FUEL
BEGINS WITH A...**

*Photograph Courtesy of
Chesapeake & Ohio Railway Co.*

Complete ARCH

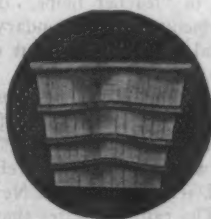
EVERY pound of coal involves scarce man-hours for its production and vital transportation to the point of use. Its economical use is essential.

For 35 years the fuel savings of the Security Sectional Arch have been universally recognized by railroad men.

But only a complete arch can give the maximum in fuel economy. To this end see that every locomotive leaving the roundhouse has a full length arch.

**HARBISON-WALKER
REFRACTORIES CO.**

Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

**Locomotive Combustion
Specialists**



these proportional commodity rate factors on this traffic was authorized under specified conditions, according to the proposed report of Examiner G. L. Shinn, by the aggregate-of-intermediates rule contained in the tariffs which published joint single-factor class rates from these origins to Cincinnati. Swift argued, however, that Cincinnati is intermediate to Louisville over the routes over which these shipments moved to Cincinnati, and that, consequently, lower joint commodity rates to Louisville were applicable under the intermediate destination-point rule contained in the tariffs naming such joint commodity rates. The tariffs containing the joint commodity rates which were effective when the shipments were made contained no affirmative routing provisions.

The intermediate rule involved is limited in application by certain notes, one of which, as summarized by Examiner Shinn, restrict its application so that "the provisions of that rule are not applicable to any intermediate point 'if there is in any other tariff a commodity rate' on the same article to such intermediate point. The rule itself is limited so that it only applies 'to any point of destination to which a commodity rate . . . is not named in this tariff.' Thus, the intermediate rule . . . clearly has no application to any intermediate point in situations where a commodity rate is published" in any tariff.

Swift contended that this note did not preclude application of the intermediate rule to its shipments, as pointed out by Examiner George A. Corbin in his proposed report, "because there were no through rates published to Cincinnati" otherwise than under the terms of the intermediate rule itself. The application of the intermediate rule, according to the reports, turns on the question whether aggregates of proportional commodity rates constitute commodity rates "in any other tariff" within the meaning of the note limiting the rule, it being Swift's argument that these aggregates are not joint rates, and since the individual proportional rate factors appear in separate tariffs the resulting aggregates do not constitute commodity rates within the meaning of the note.

Examiners' Conclusions — Examiner Shinn reached the conclusion that the aggregates of proportional commodity rate factors constituted commodity rates within the meaning of the intermediate rule note, and that such aggregates were applicable to the shipments here involved. Examiner Corbin, on the other hand, held that the joint commodity rates published to Louisville were applicable under the terms of the intermediate rule, except as to certain routes where movement from the Missouri River origins to Louisville via Cincinnati would involve a back haul.

Because of the widespread interest and concern in the principles underlying this case, the commission has afforded other interested parties an opportunity to intervene and participate, either by filing briefs or taking part in oral argument, and has allowed 30 days from October 19 for filing notice of intent to participate, another 30 days for filing briefs of exception by the original parties or others, and then 10 days for filing replies.

The questions which the commission suggested for argument in effect include the following:

Where tariffs are silent as to routing, should the rates therein be construed as applying over all possible routes composed of lines parties thereto?

If not, then what principles should govern the interpretation of such tariffs? Should the doctrine that grossly unnatural routes be deemed not open apply? Should the percentage of circuitry applicable in fourth section cases be applied?

Should the presence of intermediate rules alter the interpretation of tariffs silent as to routing?

How should the limiting note involved in this case be applied? Should it be amended?

New York Metropolitan Traffic Association Elects Officers

At the October 19 meeting of the Metropolitan Traffic Association of New York, Inc., in Hotel Pennsylvania, New York, the following were elected officers for the coming year: President, Otto Birnbrauer (Minneapolis & St. Louis Ry.); 1st vice-president, Al Clodfelter (U. S. Industrial Alcohol Co.); 2nd vice-president, J. J. Lenahan (Canadian Pacific); secretary, J. B. Sondey (American Smelting & Refining); treasurer, V. P. Golden (Union Bag & Paper Co.); and financial secretary, V. J. Walch (Illinois Central).

O. D. T. Appointment

The Office of Defense Transportation has announced the appointment of Richard H. Lamberton as deputy assistant director, Liquid Transport Department, succeeding Porter L. Howard, who has returned to private industry. Mr. Lamberton was assistant to the treasurer of the Union Tank Car Co. when he joined the O. D. T. Washington staff in March, 1943, to act as assistant to Fayette B. Dow, then director of the liquid transport division and now assistant director in charge of the department.

Club Meeting

The New England Railroad Club will next meet at 6:30 p. m., November 14, at Hotel Vendome, Boston. A paper, entitled "The Function of Maintenance of Way in Railroading," is to be presented by S. E. Armstrong, engineer, maintenance of way, New York Central.

Railroad Series for Schools Evolved by New Haven

Following a number of conferences with New England educational authorities, the New York, New Haven & Hartford has made available to public and parochial schools throughout its system, a comprehensive program of "teacher helps," designed to bring to elementary and secondary school children factual information about railroad transportation.

These "teacher helps" tell not only how railroads are run, but "because the fortunes of the New Haven Railroad are so inextricably interwoven with the welfare of New England, tell the story of New England itself." The railroad states that in un-

dertaking this program, it found that educators welcomed its interest in their transportation curriculum, and expressed a desire to broaden their instruction on New England as a region. The schools, says the New Haven, had been handicapped by a dearth of adequate material, and to correct this condition, the railroad worked out a series of six "research units" on New England, which it lists, as follows:

1. More intensive school use of our three 16 mm. sound movies
 - (a) New England Yesterday and Today
 - (b) This Is New England
 - (c) A Great Railroad at Work
2. A series of "Teachers' Guides" designed to help teachers get the greatest instruction value out of class showings of our moving pictures.
3. A series of especially-designed transportation posters for classroom display.
4. A series of slide-films on selected transportation subjects.
 - (a) It's Fun to Travel by Train (for elementary schools)
 - (b) We Find Out About Freight (for elementary schools)
 - (c) The Story of Passenger Transportation (for secondary schools)
 - (d) The Story of Freight Transportation (for secondary schools)
5. A series of "Teachers' Guides" designed to help teachers get maximum instruction value from showings of our slide-films.
6. Reference Booklets and Research Units:
 - (a) The History of a Great New England Railroad
 - (b) Power—the story of Steam, Electric and Diesel Power
 - (c) The Role of Agriculture in New England Life
 - (d) The Role of Industry in New England Life
 - (e) The New England Region and Its Resources
 - (f) The Role of Trade and Transportation in New England Life
 - (g) The New England People and Their Heritage
 - (h) The New England Region and Its Future

Eight two-color transportation posters, 28 in. by 42 in., portray the various types of motive power and kinds of passenger equipment available to travelers. These will be furnished free to any school. Previous showings of New Haven motion pictures were primarily before adult groups, but with the preparation of a Teacher's Guide, compiled for trial distribution last fall, there has been a "tremendous increase" in requests from schools for showing of these films.

Two reference booklets receive frequent requests. One deals with the history of the New Haven, and is a reprint of the August, 1943 "Old Timers' Issue" of Along the Line, employee magazine. The other is one called "Power," which is a reprint of four articles on various types of power used by this railroad.

In offering its "Research Unit," printed in booklet form, the railroad explained: "Realizing that an aroused interest in New England life and problems will further the welfare of the individual, of the state, and of the region as a whole—the New Haven Railroad takes pride in offering to teachers and students of New England a series of six research units, written by outstanding New England educators."

Schools which have not received copies of the railroad's catalogs containing a description of all these free teaching aids are asked to write to S. A. Boyer, assistant to president, Room 493, South Station, Boston.

Truck Production Falls Behind

Present rationing procedures for trucks for essential domestic uses are working slowly in some sections of the country, with

7,000 Horse Power

Controlled by
**the AMERICAN
MULTIPLE-VALVE THROTTLE**

The "Big Boy" locomotives on the Union Pacific Railroad, which develop 7,000 hp., are all equipped with American throttles.



A-1680



AMERICAN THROTTLE COMPANY, INC.

Sales Representatives:

60 East 42nd Street
NEW YORK 17, N.Y.

THE SUPERHEATER COMPANY

122 S. Michigan Blvd.
CHICAGO 3, ILL.

Canada: The Superheater Company, Ltd., Montreal

the result that trucks are accumulating both in manufacturers' and dealers' hands, according to members of the industry advisory committee of the War Production Board. W. P. B. representatives stated at the same time that total truck production for all claimants combined was running behind schedule, particularly in the heavy classifications.

During the third quarter of 1944 total truck production was 198,000 units, it was pointed out, this making the total for the first nine months 554,000, as compared to a scheduled program of 586,000. While the overall lag was in the neighborhood of 5½ per cent, there was a deficit of 8½ per cent in light-heavy trucks and of 24 per cent in the so-called heavy-heavy category. Manpower shortages were responsible for failure to meet schedules, industry spokesmen said.

Beginning with the 1945 truck production schedules, the W. P. B. plans to combine all requirements for commercial trucks, except that a separate production schedule will be maintained for "country trucks" shipped outside United States territory for the Foreign Economic Administration, the W. P. B. indicated.

I. C. C. Service Orders

The vacation of Interstate Commerce Commission Service Order No. 84, requiring the Coudersport & Port Allegany to reroute traffic, which was to have been effective October 23, as noted in *Railway Age* of October 14, page 592, has been suspended on coal and coke only until December 9 by Service Order No. 84-B.

Missoula Yards Set Record in Cars Handled

A record for the Missoula, Mont., yards of the Northern Pacific was established in August when 70,459 cars were handled. This compares with 58,713 cars handled in August, 1943, and 68,000 cars handled in September, 1944. Heavy sugar beet movements this year have contributed to the large number of cars being handled.

New W. P. B. Salvage Director

The War Production Board has announced the appointment, effective November 1, of W. Thomas Hoyt as director of the Salvage Division, succeeding Herbert M. Faust, who is returning to industry. Mr. Hoyt has been with the division since it was set up, and for the past year has been its deputy director.

Trolley on Swiss Dining Car Gives Current for Cooking

Despite a growing raw material shortage, and similar difficulties confronting Swiss industry, the Swiss Federal Railroads attempt to do what they can to modernize rolling stock, advises the Official Information Bureau of Switzerland, in New York. This agency now reveals that early this year, a new type of first- and second-class passenger car was inaugurated, which reduced the tare from 40 tons (heavy and medium weight coach) to 28 tons. Primarily intended for use by light express trains, these cars cost about 180,000 Swiss francs each.

This bureau also announces a new type dining car which is being put in service. It features a trolley, whereby current for the electric stove in the kitchen is obtained directly from the overhead power wire. The car weighs 33 tons, 15 tons less than the old cars.

ICC View on Post War Traffic Outlook

(Continued from page 665)

the estimated national income for the same post-war years on the A level, in billions of dollars, is 134, 142, and 149; on the B level, 129, 133, and 137; and on the C level, 120, 125, and 127.

Railroad Assets Mount.—The working capital of the railroads has been much improved during the war, the authors point out, and their current assets are over 50 per cent greater than in 1939, even after being corrected for the price rise since then, and even after deducting investments in government bonds as offsets to taxes accrued. The net working capital of the railroads, they observe, has increased over 400 per cent during the war.

Turning to post-war traffic prospects, the outlook is summarized in this way: "It seems likely that much of the rail passenger traffic of the war period will return to the private passenger car. Water-borne traffic may be expected to resume its pre-war condition of importance once ships are freely available for allocation to domestic commerce. Trucks, both for-hire and those of private registry, will continue to gain traffic at a faster rate than the older forms of transport. Competition from air transport in the immediate post-war years would not seem to be important, "assuming extensive governmental aid does not disturb economic relationships."

Considering all types of transportation, the study predicts that ton-miles handled in 1947 will total between 1,011.5 and 1,122.9 billions, or from 1 to 12 per cent above the 1941 total and 38 to 45 per cent above the 1935-1939 average. In 1948 it is expected that the increase over 1941 will be between 4.2 and 15.3 per cent, and for 1949 the estimated increase over 1941 is from 6.1 to 20.4 per cent, depending on what assumed national income level is taken as a base.

In the first post-war year estimated passenger-miles, exclusive of military and furlough traffic, for all carriers together are near the 1941 total. Slight increases are expected in the two following years, so that by 1949 the increase is estimated as 3.9 to 16.6 per cent over 1941. As compared to the 1935-1939 average, aggregate passenger traffic increases by all forms of transportation are expected to be a little smaller than the corresponding increases in freight traffic.

Prospects for Trucks.—In 1941 intercity common carrier and contract carrier trucks handled about 31 billion ton-miles. The study's estimates of post-war traffic for intercity for-hire trucks show the following comparisons with 1941: decreases from 12.9 to 1.0 per cent in 1947, from a 9.4 per cent decrease to a 2.6 per cent

increase in 1948; and from a 7.8 per cent decrease to a 7.7 per cent increase in 1949. Private trucks handled about 37.5 billion ton-miles in 1941, the report points out, and estimates of post-war ton-miles for this transportation agency are well in excess of this figure, since "the operations of private trucks during the decade of the thirties grew much faster than those of for-hire trucks." Increases over 1941 ranging from 17.9 to 39.7 per cent are estimated for 1947; from 24.5 to 46.4 per cent for 1948; and from 27.5 to 56.0 per cent for 1949 for this carrier classification.

Tie Association Meeting

The twenty-seventh annual meeting of the Tie Association will be held at the Netherland Plaza Hotel, Cincinnati, Ohio, May 8-9, 1945. The membership of committees that will present reports at that meeting has been selected and subjects have been assigned. These subjects, together with the chairmen of the committees, are as follows:

(1) Checking and Splitting of Ties Before Being Placed in Track, chairman, T. H. Patrick, treatment inspector, Chicago, Milwaukee, St. Paul & Pacific, Chicago.

(2) Checking and Splitting of Crossties in Track, chairman, J. B. Akers, assistant chief engineer, Southern, Washington, D. C.

(3) New and Pending Legislation Affecting the Crossties Industry, chairman, B. N. Johnson, general superintendent of production, Wood Preserving Division, Koppers Company, Richmond, Inc.

(4) Efficient Manufacturing Practice and New Methods to Overcome the Shortage in Manpower, chairman, D. B. Frampton, president, D. B. Frampton & Co., Pittsburgh, Pa.

(5) Moisture Gradient as a Factor in Treatment of Crossties (a joint study with a committee of the American Wood-Preservers' Association), chairman, W. P. Arnold, technical director, Wood Preserving Division, Koppers Company, Orrville, Ohio.

(6) Proposed Changes in Specifications, chairman, D. C. Jones, district vice-president, Wood Preserving Division, Koppers Company, Chicago.

(7) Timber Conservation, chairman, H. R. Condon, vice-president, Wood Preserving Division, Koppers Company, Pittsburgh, Pa.

(8) Concentration Yards, chairman, R. B. Smith, in charge of production, D. B. Frampton & Co., Pittsburgh, Pa.; and

(9) Production Problems, chairman, Waldo Tiller, president, J. A. Tiller & Son, Little Rock, Ark.

Construction

ATLANTIC COAST LINE.—This railroad has awarded a contract for the construction of seven miles of main line track and abandonment of 23 miles of main line track in Collier county, Fla., at estimated cost of \$200,000, to the Cornell-Young Company, of Macon, Ga.

CANADIAN PACIFIC.—This railroad is considering the construction of a modern and larger station at Calgary, Alta., as part of its post-war expansion program, according to W. M. Neal, vice-president of the company.

MONTOUR.—The Pennsylvania Public Utility Commission has found that the bridge carrying U. S. highway No. 22 above the two main tracks of the Montour in North Fayette Township, Pa., is unsafe and beyond repair, and has approved the construction of a new bridge about 50 ft. north of the present crossing. The plan approved by the commission calls for the construction of a 3-span continuous I-beam

HSGI wear-resisting PARTS



P.S. for a POST-WAR History

A significant chapter of a formal war history will deal with the railroads' accomplishments, especially the locomotives' role in extending their usefulness by working longer and harder, running farther for a lower cost.

History won't mention it, but the performance and contribution of HUNT-SPILLER *Air Furnace* GUN IRON will be found in operating records. For this better wear and heat resisting material is used for valves, cylinders and other vital locomotive parts on more roads than we can name here. The most benefits accrue from the larger use of HSGI applications listed below.

HSGI
Reg. U. S. Trade Mark
Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings

Finished Parts
Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above)
Sectional Snap Rings
Cylinder Rings, All Shapes
Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

HUNT-SPILLER MFG. CORPORATION

N. C. Raymond, President

E. J. Fuller, Vice-Pres. & Gen. Mgr.

Office & Works

383 Dorchester Ave.

South Boston 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.

Export Agent for Latin America:

International Rwy. Supply Co., 30 Church Street, New York, N. Y.

HUNT-SPILLER GUN IRON

Air Furnace

bridge supported at each end by low reinforced concrete abutments carried upon reinforced concrete piles and, at two intermediate points, by open reinforced concrete piers. Cost of the crossing improvement is estimated at \$84,130, of which \$33,330 is for highway approach work and \$50,800 for bridge work.

Equipment and Supplies

FREIGHT CARS

The NEW YORK, CHICAGO & ST. LOUIS has issued inquiries for 500 40½-ft. all-steel box cars of 50-tons' capacity.

The MISSOURI PACIFIC has ordered 1,000 box cars of 50 tons capacity from the American Car & Foundry Co. Inquiry for this equipment was reported in the *Railway Age* of September 16.

IRON AND STEEL

The ATLANTIC COAST LINE has ordered 93,870 gross tons of rail for 1945 delivery from the Tennessee Coal, Iron & Railroad Co.

SIGNALING

The BOSTON & MAINE has placed an order with the General Railway Signal Company for equipment for an all-relay interlocking machine to replace an existing electromechanical interlocking at Portland Terminal, Tower 1, Rigby, Me. This new machine is for the control of 14 model 5C 110-volt switch machines and 30 type SA search-light signals.

The BOSTON & MAINE has placed a contract with the General Railway Signal Company for an all-relay interlocking machine is for the control of 14 model 5C 110-at Concord, N. H. The order includes 203 type K relays, 18 type BT rectifiers, 22 model 5C switch machines, 22 type SC dwarf signals and one two-unit ground signal.

The ATCHISON, TOPEKA & SANTA FE has awarded a contract to the Union Switch & Signal Co. for materials involved in the construction of centralized traffic control between Algoa, Tex., and Houston, protecting reverse running on 7 mi. of double track, with crossovers located at the points required to run certain trains around each other while traveling in the same direction, and on 19 mi. of single track with three sidings. The C. T. C. machine, located at Alvin Tower, will control the new model M-22A dual control low-voltage electric switch machines and style H-5 search light signals, with the order also including DN-11 relays, housings, type T-21 hand-throw switch movements with SL-21 electric locks, U-5 switch circuit controllers, etc. The construction work will be done by the railway's installation forces.

Supply Trade

Pullman-Standard Suit Against Union Is Dismissed

The \$1,000,000 libel suit—brought by the Pullman-Standard Car Manufacturing Company against Local 292, United Steelworkers of America (C. I. O.) and a number of individual union officers—was dismissed by Judge Michael L. Igoe of the federal district court at Chicago on October 20, on the grounds that a union, as such, is not sueable under common law and Illinois court decisions which the federal court is bound to follow; and that the published statement in the "Keel," the union's paper, did not constitute action for libel. The company alleged libel in an article published June 10, 1943, in the "Keel" which, according to Pullman-Standard, accused the company of falsifying financial statements in regard to its war contracts. The statements with a "pie chart" showing how the company's revenue was distributed to "wages," "profits," etc., were published in newspaper advertisements.

Otto Kuhler, industrial designer in the railroad field, has been retained by the American Car & Foundry Co. as design engineer of passenger-train car equipment for the post-war period. Under the arrangement made, a. c. f. will have the exclusive benefit of his services beginning November 1. Mr. Kuhler studied electrical and mechanical engineering in European schools and was graduated with a degree in mechanical engineering from a prominent European technical university. He came to the United States in 1922, working in Pittsburgh, Pa., for a time as a commercial artist. He subsequently turned his attention to the railroad field and developed a design for a streamlined locomotive which was published by the *Railway Age* in 1931 and has since, with some modifications, de-



Otto Kuhler

veloped into the standard for locomotive design. Soon thereafter, he became associated with American Locomotive Company and in collaboration with engineers of that company and of the Chicago, Milwaukee, St. Paul & Pacific, he was responsible for the styling of the "Hiawatha" trains. At this time he also was retained by the Balti-

more & Ohio as a consulting engineer and supervised the conversion of many of the railroad's trains; and designed streamlined trains for other railroads. He also has designed buses for the Baltimore & Ohio and for White Motor Company, a subway car for the City of Philadelphia, Pa., and modern stations for the Milwaukee and the Rock Island. He is the author of a book for children "On the Railroads," and is co-author with Robert S. Henry of the Association of American Railroads of "Portraits of the Iron Horse," which outlines the history of the American locomotive. More recently he has been actively engaged in the development of post-war designs in travel, motive power, cars and stations.

George L. Green has been appointed vice-president in charge of sales of the Mt. Vernon Car Manufacturing Company, a division of the H. K. Porter Company, of Pittsburgh, Pa. Mr. Green was formerly sales manager, railroad and allied industries, for the Elastic Stop Nut Corporation. He was graduated from Yale



George L. Green

University in 1931 and subsequently served for ten years with the Union Asbestos & Rubber Co., Chicago, as sales engineer, salesman, and assistant vice-president, railroad sales.

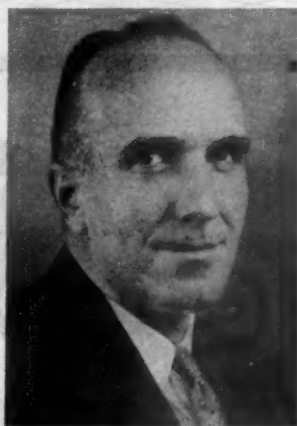
Victor Failmezger, formerly application and field engineer for the H. K. Porter Company of Pittsburgh, Pa., has been appointed sales manager of the Quimby Pump Company, a Porter subsidiary.

Edward C. Fales, assistant to the general manager of operations of the Sylvania Electric Products Company, has been appointed assistant to the president of the American Welding & Manufacturing Co., Warren, Ohio.

The H. K. Porter Company, of Pittsburgh, Pa., has filmed and now has ready for release to the trade, a 16 mm. sound Kodachrome motion picture titled "Custom Built Power," which depicts the building of a 100-ton Diesel-electric switching locomotive. Presenting a colorful comparison of locomotive and fashion changes from 1866 to the present, the film is a panorama of locomotive progress in the past 80 years together with major details of interest in the construction of the 100-ton Diesel.

"Custom Built Power" has a showing time of 20 minutes, to which Porter will add from its film library, additional special films of interest to any particular group, providing a 40 minute show in all. George L. Phillips, public relations manager, is in charge of showings which are available on request.

S. W. Moser has been appointed Diesel service manager for the Baldwin Loco-



S. W. Moser

motive Works, with headquarters at Eddystone, Pa. G. W. Burnett has been appointed eastern regional supervisor of Diesel service, also with headquarters at Eddystone, and J. F. Kirkland has been appointed western regional supervisor, with headquarters at 627 Railway Exchange building, Chicago.

F. E. Leib, who has been in charge of the Washington office of the Copperweld Steel Company, has been appointed assistant general manager of sales and C. H. Jensen, assistant electrical engineer, has been appointed electrical engineer of the company.

John A. Sargent, assistant manager of the Menominee and Marinette Light & Traction Co., a subsidiary of the Wisconsin Public Service Corporation, has been appointed planning engineer for the Ansul Chemical Company and its new Dugas division, formerly the Dugas Engineering Corporation, a wholly-owned subsidiary.

TRADE PUBLICATIONS

DIESEL WAR POWER—The History of Electro-Motive's Diesel Engines in the Service of the United States Navy is the title of a 72-page book prepared by the *Electro-Motive Division of General Motors* as a progress report for its employees. In a letter to the employees, C. R. Osborn, general manager, said, "We want to make it easier for our employees to visualize how and where the things we build are being used in the war; also we have an idea that the public little realizes how these products are speeding eventual victory. The special skills and techniques which our folks have developed in peace-time are proving of immeasurable help to our boys who are fighting for us all over the world. The superior weapons and equipment which our men in

combat service are now using would not have been available otherwise.

"For their splendid co-operation we want to pay tribute to the men of the Detroit Diesel and Cleveland Diesel Engine divisions of General Motors, who are associated with us in this endeavor. We wish also to acknowledge the splendid help of the many sub-contractors without whose co-operation our production record would not have been achieved.

"While miracles may happen in world politics, we need not tell you that, in our opinion, the war is not nearly over. This book, therefore, is in the nature of a progress report, written while the battle goes forward. We know we bespeak the sentiments shared by everyone in Electro-Motive when we affirm pride in our war effort, as represented by the vessels powered with our Diesel engines, and voice confidence that both these vessels and our Diesel locomotives will continue to make their full contribution to the nation's all-out war effort."

The variable pitch propeller, the freight locomotive, the pancake engine, power for landing craft, the quad engine and other war items are pictured and discussed in the book.

Financial

BOSTON & MAINE.—*Acquisition.*—This company, which owns 2,262 shares of the stock of the Concord & Portsmouth, has applied to the Interstate Commerce Commission for authority to acquire the balance outstanding of the 3,500 shares issued, for which it proposes to pay \$50 a share, and to acquire the property and franchises of the subsidiary.

CHICAGO, BURLINGTON & QUINCY.—*Bonds.*—The Chicago, Burlington & Quincy, on October 24, called for bids on a proposed \$40,000,000 bond issue. Bids will be opened on November 1.

CHESAPEAKE & OHIO.—*Purchase of W. & L. E. Stock.*—Division 4 of the Interstate Commerce Commission has authorized this company to purchase at \$59.60 per share, subject to certain adjustments, certificates of deposit representing 5,482 shares of Wheeling & Lake Erie common stock offered it by the Allegheny Corporation upon solicitation under the requirements of the commission's regulations in Ex Parte 54. This stock was bought by Allegheny in order to complete the purchase of 16,357 shares held by the North American Coal Corp., the C. & O. having bought 10,875 shares thereof under a previous I. C. C. authorization, and the present transaction will result in acquisition by the C. & O. of the entire lot. Upon completion of this sale, the C. & O. will hold 35.11 per cent of all classes of W. & L. E. stock, and its subsidiary, the Nickel Plate, will hold 32.88 per cent, the combined holdings amounting to 67.99 per cent, all being deposited with a trustee as required by the commission. Payment is to be made in cash from the road's treasury. Concentration of Wheeling stock in a single holding will facilitate unification of that road

with another carrier, the division pointed out, but it was "not prepared to state" whether C. & O.'s "further measure of control" of Wheeling would facilitate a lease of the latter to some other road.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Reorganization.*—The date by which foreign security holders of the Chicago, Milwaukee, St. Paul & Pacific may turn in their ballots on the reorganization plan approved by the Interstate Commerce Commission has been extended by the I. C. C. from November 29 to December 29. The original I. C. C. order, governing ballots from the British Isles, Turkey, Spain, Portugal, Argentina, Chile and Brazil, was changed because of uncertain mail transmission from those countries.

CHICAGO, ROCK ISLAND & PACIFIC.—*Payment to R. F. C.*—Trustees of the Chicago, Rock Island & Pacific will ask the federal district court at Chicago on October 31, for permission to pay off \$13,718,700 of collateral loans to the Reconstruction Finance Corporation with interest at not exceeding 4 per cent, notice of intention having been served on various parties to the reorganization proceeding. The R. F. C. loans are secured by collateral consisting of mortgage bonds of the Rock Island and other securities of its subsidiaries with an aggregate face amount of \$40,199,950.

DELAWARE, LACKAWANNA & WESTERN.—*Leased Line Payments Enjoined.*—On October 24, payments by the Delaware, Lackawanna & Western to shareholders of the Warren, a leased line, were enjoined by the federal district court as part of an action brought by the government to collect income taxes from the Warren.

NEW YORK, NEW HAVEN & HARTFORD.—*Reorganization.*—The United States circuit court of appeals in New York has reserved decision on appeals brought by certain creditors and stockholders of the New York, New Haven & Hartford from an order of the United States district court in Connecticut approving the plan of reorganization for this railroad.

PENNSYLVANIA.—*Leased Line Refinancing.*—Division 4 of the Interstate Commerce Commission has authorized this road's subsidiary, the Pittsburgh, Cincinnati, Chicago & St. Louis, to sell \$23,735,000 of series E general mortgage 3½ per cent bonds to Kidder, Peabody & Co., Drexel & Co., and others, and has authorized the parent company to guarantee the new issue as to interest and principal. (Previous item in *Railway Age* of October 14, page 604.) The net saving to maturity to be realized through the substitution of this issue for higher-interest securities is estimated at \$10,816,188, and in addition the P. R. R. expects a \$1,250,000 income tax benefit.

The division also has authorized the Cleveland & Pittsburgh, a P. R. R. leased line, to sell \$11,000,000 of series C general and refunding mortgage 3 per cent bonds to Auchincloss, Parker & Redpath, and has authorized the Pennsylvania to assume liability as lessee and guarantor as to principal and interest. (Previous item in *Railway Age* of October 14, page 604.) The net saving to maturity to be realized



IN THE HALL OF FAME

of American Inventive Genius

American inventions have their own Hall of Fame, where you can see the developments that have done most to influence and enrich our living . . . such things for instance as the early electric light, generator, telephone, the first models of automobiles, the engine that powered the first plane. And among these historical exhibits you'll find another: the Westinghouse Air Brake.

A Westinghouse Air Brake panel is on display in both the Franklin Institute, Philadelphia, and the Smithsonian Institution, Washington. Many of the hundreds of thousands of visitors who come each year see for the first time the devices that have contributed so vitally to their comfort and safety every time they have ridden a train.

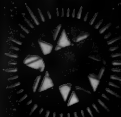
Railroad men are the first to acknowledge that without the continuing development of the air brake, the continuing miracles in transportation that the railroads have accomplished would have been impossible.

75 Years of Pioneering

WESTINGHOUSE AIR BRAKE COMPANY, WILMERDING, PA.

Great strides in rail transportation are confidently expected after the war. In reviewing your own plans, you may discover that the installation of new Westinghouse equipment on existing rolling stock will convert it to meet the increased service and revenue requirements of tomorrow. Westinghouse Air Braking Equipment is always abreast of all transportation needs.

1869



1944

TO PERMIT TODAY'S TRAINS TO

MOVE AT SHORTER INTERVALS

WITH HEAVIER LOADS AT HIGHER

SPEEDS—SAFELY.

through the substitution of this issue for higher-interest securities is estimated as \$7,097,108, and in addition it is expected that the Pennsylvania system will benefit to the extent of \$556,000 through income tax deductions. Because the new issue carries a sinking fund arrangement, which was not true of the securities being retired, the transaction contributes to a substantial reduction in debt, the division pointed out.

NEW YORK, CHICAGO & ST. LOUIS.—Collateral Loan.—Division 4 of the Interstate Commerce Commission has authorized this company to issue \$10,000,000 of promissory notes, payable in installments of \$500,000 in each of the years 1945 to 1948 and of \$8,000,000 in 1949, bearing interest at the rate of 1.745 per cent per annum, except that one per cent shall be payable under certain conditions to the extent that cash or government bonds are deposited as collateral. The notes are to be supported by a pledge of \$16,464,000 of refunding mortgage 4½ per cent bonds, series C, subject to certain conditions under which cash or government bonds may be substituted. The proceeds of the loan thus obtained from the Manufacturers Trust Co. of New York, plus treasury cash, will be used to retire at 101 the \$15,188,000 of extended first mortgage 3½ per cent bonds outstanding. This transaction constitutes the first step in a program for refunding a substantial part of the road's outstanding debt at more favorable interest rates. (Previous item in *Railway Age* of September 23, page 496.)

SEABOARD AIR LINE.—Bond Deposit Asked.—The reorganization committee of the Seaboard Air Line has requested holders of the railroad's bond issues to deposit their securities in support of the plan of reorganization already approved by the United States district court and by committees for all but two of the bond issues. The reorganization committee emphasized that failure to complete the reorganization in current equity proceedings because of insufficient deposit of bonds will mean a transfer of the reorganization to Section 77 of the bankruptcy act and involve a further long delay.

SOUTHERN.—New Director.—On October 24, Dr. Douglas Southall Freeman, editor of "The News Leader", Richmond, Va., was elected a director of the Southern to succeed the late Dr. John Stewart Bryan.

SOUTHERN.—Common Dividend.—On October 24, directors of the Southern declared a dividend of 75 cents per share on the common stock payable December 15, which will bring total 1944 payment to \$2.75 per share, as compared with \$2.00 paid in 1943.

Average Prices Stocks and Bonds

	Oct. 24	Last week	Last year
Average price of 20 representative railway stocks	42.10	42.01	37.74
Average price of 20 representative railway bonds	90.25	90.14	80.33

Dividends Declared

Atlantic Coast Line (year-end).—\$1.50, payable December 12 to holders of record November 15.
Erie.—50¢, payable December 15 to holders of record November 30.
Louisville & Nashville (year-end).—\$2.00, pay-

able December 12 to holders of record November 10.

Ontario & Quebec.—\$3.00, semi-annually, payable December 1 to holders of record November 1.

Southern.—\$1.25 preferred, 75¢ common, both payable December 15 to holders of record November 15.

Tennessee Central.—7% preferred accum., \$7.00, payable October 21 to holders of record October 14.

Western Maryland.—7% 1st preferred accum., \$7.00, payable November 21 to holders of record November 1.

Wheeling & Lake Erie.—5¼% conv. preferred, \$1.37½, quarterly; 4% prior lien, \$1.00, quarterly, both payable November 1 to holders of record October 23.

Railway Officers

FINANCIAL, LEGAL AND ACCOUNTING

Charles William Champion, whose retirement as auditor, freight and passenger revenue, of the Bessemer & Lake Erie was announced in the *Railway Age* of October 14, was born at Southampton, England, on



Jay A. Barnhart

July 20, 1879, and entered railway service with the Wheeling & Lake Erie as a clerk at Pittsburgh, Pa., in March, 1906. In January, 1911, he became traveling auditor at Cleveland, Ohio, leaving the road the following September to join the Bessemer & Lake Erie as interline freight clerk at Pittsburgh. He was advanced to chief interline freight clerk on February 1, 1913, and to chief clerk, freight accounts, on June 1, 1918. He remained in this post until April, 1930, when he was named auditor, freight and passenger revenue, the position he held at the time of his recent retirement.

Jay A. Barnhart, who succeeds Mr. Champion as auditor, freight and passenger revenue, of the Bessemer & Lake Erie at Pittsburgh, as reported in the October 14 issue of *Railway Age*, was born at Kittanning, Pa., on February 7, 1883, and entered railway service with the Bessemer & Lake Erie as a clerk, passenger accounts, in April, 1901. He was named chief clerk, passenger accounts, in October, 1910, and traveling auditor in January, 1925. In April, 1930, Mr. Barnhart became chief clerk, freight revenue, the position he held at the time of his recent appointment as

auditor, freight and passenger revenue, at Pittsburgh.

William E. Davis, whose promotion to general solicitor of the Kansas City Southern and the Louisiana & Arkansas, with headquarters at Kansas City, Mo., was reported in the *Railway Age* of October 21, was born at Polo, Mo., on February 21,



William E. Davis

1892, and was graduated from the University of Chicago in 1917. He entered railway service on June 1, 1924, as commerce counsel of the K. C. S. at Kansas City, holding that position until his new appointment, effective October 1.

Harry Knapp Goodwin, whose resignation as regional treasurer, Atlantic region, of the Canadian National at Moncton, N. B., was reported in the October 14 issue of *Railway Age*, was born at Moncton and joined the Canadian National on March 10, 1892, as a messenger in the treasury department there. He was promoted to the position of clerk two years later, and on March 21, 1913, he was named accountant. He was transferred to Winnipeg, Man., as local treasurer on July 1, 1917, returning to Moncton as paymaster in 1920. In April, 1923, he was appointed assistant treasurer, Atlantic region, and the duties of pay-



Charles Raymond Blakney

master were added to this position in January, 1926. On December 1, 1935, he was advanced to regional treasurer, the position he held at the time of his recent retirement.

Charles Raymond Blakney, whose

appointment as regional treasurer of the Canadian National, Atlantic region, at Moncton, N. B., succeeding Mr. Goodwin was announced in the *Railway Age* of October 14, was born at Sunny Brae, N. B., and entered railway service with the Canadian National at Moncton in April, 1913, as junior clerk in the audit office, being transferred the following September to the treasurer's office as clerk-stenographer. He saw service in the first World War from August, 1914, to April, 1919, and returned to the Canadian National as a clerk. In July, 1923, Mr. Blakney was named cashier, becoming cashier and chief clerk in February, 1926. On August 16, 1939, he was promoted to paymaster, the position he held at the time of his recent appointment as regional treasurer of the Canadian National at Moncton. Mr. Blakney, also served in the present war from July, 1940, to January, 1941, when he was transferred to the Army reserve of officers, with the permanent rank of Major.

William Kruckstein, whose promotion to assistant comptroller of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of October 21, was born at



William Kruckstein

Chicago on August 19, 1885, and entered railway service in May, 1903, with the Milwaukee. He held a number of minor positions until August 1, 1920, when he was appointed ticket auditor, with headquarters at Chicago. On July 1, 1941, Mr. Kruckstein was advanced to auditor of passenger and station accounts, with the same headquarters, holding that position until his new appointment, effective October 9.

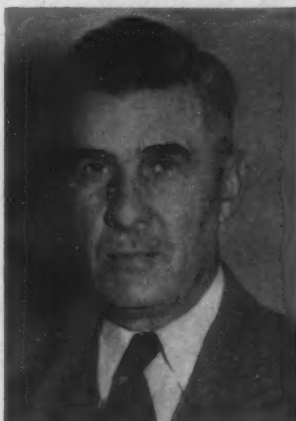
OPERATING

W. L. Pippin has been appointed assistant superintendent of the Georgia Northern and the Georgia, Ashburn, Sylvester & Camilla.

F. E. Bailey, assistant superintendent, New Brunswick district, of the Canadian Pacific at Brownville Junction, Me., has been appointed superintendent of the New Brunswick district with the same headquarters, succeeding **D. S. Thomson**, whose promotion to general superintendent of the Ontario district was announced in the *Railway Age* of October 14. **Alfred Whalen**, conductor, Sudbury division, succeeds Mr.

Bailey as assistant superintendent, New Brunswick district, at Brownville Junction.

Nelson E. Kidder, until recently district director, division of railway transport, Office of Defense Transportation, has been appointed supervisor of less-than-carload service on the Boston & Maine, effective immediately. Mr. Kidder will head an aug-



Nelson E. Kidder

mented force in the railroad's transportation department, to conduct an intensive drive to improve small-shipments service to and from all communities on its lines in Massachusetts, New Hampshire, Vermont, Maine and New York. Mr. Kidder began his railroad career in 1906, as station helper with the B. & M., at East Jaffrey, N. H. He was subsequently agent, superintendent's clerk, car distributor, traveling agent, freight assistant to the superintendent and transportation inspector of freight. He was given leave of absence in 1942 to go with the O. D. T.

Francis Joseph Cassidy, whose appointment as superintendent of the Lehigh & Susquehanna division of the Central of New Jersey with headquarters at Mauch



Francis Joseph Cassidy

Chunk, Pa., was announced in the *Railway Age* of October 14, was born at Mauch Chunk on October 9, 1893, and entered railway service in July, 1911, as a messenger on the Lehigh Valley. He later acted as telegraph operator, and then joined the Central of New Jersey as extra telegraph

operator in December, 1914. After working as extra telegrapher, signalman, and agent, he became extra train dispatcher in 1922, thereafter serving successively as regular train dispatcher and assistant chief dispatcher until May 1, 1937, when he was promoted to assistant trainmaster at Mauch Chunk. He was advanced to road freight trainmaster, Central division, at Jersey City, N. J., in September, 1941, and on April 1, 1943, he was named assistant superintendent of the Central division there, the position he held at the time of his recent appointment to superintendent of the Lehigh & Susquehanna division at Mauch Chunk.

Hugh E. Van Slyke, trainmaster of the New York Central, with headquarters at Ashtabula, Ohio, has retired after 47 years of service.

M. R. Clinton, assistant superintendent of car service of the New York Central at Buffalo, N. Y., has been appointed superintendent, car service, with the same headquarters.

Wilfred L. Wilson, whose promotion to superintendent of the Medicine Hat division of the Canadian Pacific, with headquarters at Medicine Hat, Alta., was reported in the *Railway Age* of October 14, was born at Calvin, Ont., on June 24, 1897, and entered railway service in June, 1912, as an extra gang timekeeper at Mattawa, Ont. He held several minor positions at various points of the road until August, 1918, when he was advanced to trainmaster, with headquarters at Schreiber, Ont., later serving as trainman, yardman and relieving trainmaster at Smiths Falls, Ont. On May 1, 1941, Mr. Wilson was promoted to assistant superintendent of the Trenton division, with headquarters at Toronto, Ont., and on January 1, 1943, he was transferred to the Smiths Falls division, with headquarters at Ottawa, Ont. On November 1 of the same year he was transferred to the Calgary division, with headquarters at Calgary, Alta., remaining in that location until his new appointment.

TRAFFIC

W. P. Hoffman has been appointed general agent, freight department, of the New York Central, at Albany, N. Y.

W. F. Hoagland has been appointed general southern freight agent of the Pennsylvania at Atlanta, Ga.

A. Green has been appointed division freight agent of the Canadian National with headquarters at Halifax, N. S.

T. R. Hook, Jr., has been appointed general agent of the Louisville & Nashville, with headquarters at Cleveland, Ohio.

John V. Flaig has been named southeastern passenger agent of the St. Louis-San Francisco with headquarters at Birmingham, Ala.

Charles A. Arentzen, assistant freight traffic manager of the Delaware, Lackawanna & Western at New York, has retired after 38 years of service. Mr. Arentzen entered railroad service with the Delaware, Lackawanna & Western in 1906 as a clerk



Let's get *down to earth*
on train communication

"UNION"

INDUCTIVE TRAIN COMMUNICATION

Dependable voice communication

"Union" I.T.C. (Inductive Train Communication) system provides dependable, practicable two-way voice communication between vehicles on a train, between trains, and between trains and wayside points.

It is the only train communication system designed exclusively for railroad use, by men who know railroad needs, and proved through years of regular railroad service.



As easy to use
as the *telephone*
... that's "Union" I.T.C.

Train communication systems are created by experts in that field but they are used by regular railroad personnel who have many diverse duties to perform.

That's why *simplicity and speed of operation* were included among the primary requisites governing the design of the "Union" Inductive Train Communication system.

Press a button on the handset to talk. Release it to listen. No special training is required.

Just one more reason why eight railroads have already discovered that, *in train communication, "Union" I.T.C. is the answer.*

Full information will be furnished without obligation by our nearest district office.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE, PA.

NEW YORK

CHICAGO

ST. LOUIS

SAN FRANCISCO

in the Boston office. He was transferred to the general eastern freight office at New York in 1909. In 1920 he was promoted to general eastern freight agent at New York, and in May, 1934, he became assistant general freight agent. He was named assistant freight traffic manager at New York in September, 1935, and remained in that position until his recent retirement.

Harry Franklin Rose, whose appointment as general freight agent of the Grand Trunk at Buffalo, N. Y., was announced in the October 21 issue of *Railway Age*, was born March 12, 1890, at Rednerville, Ont., and entered railway service in the transportation department of the Grand Trunk at Island Pond, Vt., as a clerk on April 10, 1906. He went to Montreal, Que., as a stenographer in the general freight department in February, 1908, and the following year was transferred to the New York office. He was advanced to chief clerk at New York on November 6, 1911, and became soliciting freight agent there in September, 1915. From April 1, 1918, to November 23, 1919, Mr. Rose served successively with the British Ministry of Shipping and the American Smelting & Refining Co., and then rejoined the Grand



Harry Franklin Rose

Trunk as traffic representative at New York. He was named freight traffic representative on July 1, 1921, traveling freight agent on March 1, 1922, and westbound agent on January 1, 1923. In February, 1931, he was promoted to general agent at Philadelphia, Pa., and on January 1, 1938, he became general eastern freight agent at New York, the position he held at the time of his recent appointment as general freight agent at Buffalo.

Herbert Harold Wilson, who succeeds Mr. Rose as general eastern freight agent of the Grand Trunk, at New York, as reported in the *Railway Age* of October 21, was born September 19, 1898, at Buffalo, N. Y., and entered railway service with the Grand Trunk as a clerk in the department of the general freight agent at Buffalo on August 1, 1917. He resigned in January, 1919, to join the engineering department of the New York Central, but returned to the Grand Trunk on February 15, 1921, as a clerk-stenographer in the general agent's department at Buffalo. On July 1, 1923,

he was named assistant rate clerk in the general freight agent's department, becoming traveling freight agent in the general agent's department on March 16, 1925. He served as chief clerk in the general freight agent's department from February 1, 1928, until January 1, 1938, when he was appoint-



Herbert Harold Wilson

ed westbound agent at New York. He was named general agent on February 1, 1940, the position he held at the time of his recent promotion to general eastern freight agent at New York.

Joseph H. Sheehy, general agent of the New York Central, with headquarters at Columbus, Ohio, has retired after 49 years of service.

Roy C. Nerland, general eastern passenger agent of the Atlantic Coast Line at New York, has been appointed assistant general passenger agent at Wilmington, N. C.

John P. Gunther, general merchandise agent of the Kansas City Southern, has been promoted to assistant general freight agent, with headquarters as before at Kansas City, Mo.

W. J. Fitzgerald, district freight agent of the Lehigh & Hudson River at New Haven, Conn., has been appointed New England freight agent at Boston, Mass. **J. M. Hart** succeeds him at New Haven.

P. W. Stubbs, general eastern agent of the Piedmont & Northern and the Durham & Southern at New York, has been named general agent at Augusta, Ga. **F. E. Williams** succeeds Mr. Stubbs as general eastern agent at New York.

E. F. Ghormley, general agent, passenger department of the Southern Pacific at Seattle, Wash., has been promoted to assistant general passenger agent, with headquarters at Portland, Ore. **J. W. Gaines**, city passenger and ticket agent at Portland, has been advanced to general agent, with headquarters at Seattle.

Henry C. P. Cresswell, European colonization manager of the Canadian Pacific at London, England, has been appointed chief commissioner, department of immigration and colonization, with head-

quarters at Montreal, Que. Mr. Cresswell succeeds **J. N. K. Macalister**, who asked to be relieved from active service but will continue to act as consultant to the department and assist in framing the company's post-war policies. **John Duncan Cameron**, special representative in the office of the vice-president at Montreal, has been appointed European colonization manager at London, succeeding Mr. Cresswell.

Ellsworth S. Bodie, assistant general freight agent of the New York, Chicago & St. Louis, with headquarters at Buffalo, N. Y., has been transferred to Washington, D. C. **James P. Christie**, division freight and passenger agent at Peoria, Ill., has been named to succeed him at Buffalo. **Kenner S. Boreman**, general freight agent at St. Louis, Mo., has been promoted to assistant freight traffic manager at Chicago, succeeding **Joseph W. Brady**, whose death was reported in the *Railway Age* of October 7. **Warren W. Brown**, assistant general freight agent at Chicago, has replaced Mr. Boreman as general freight agent at St. Louis, while **Ralph R. Deahl**, general agent at Pittsburgh, Pa., has been advanced to assistant general freight agent at Chicago. **Harold Wilding**, general coal agent of the Nickel Plate-Lackawanna Dairy Line at Cleveland, Ohio, has been promoted to general agent at Pittsburgh in Mr. Deahl's place.

MECHANICAL

Paul V. Garin, assistant engineer of tests of the Southern Pacific, has been promoted to engineer of tests, with headquarters as before at San Francisco, Cal., succeeding **Dennistoun Wood**, whose death on July 12 was reported in the *Railway Age* of July 29.

Pedro C. Morales, who resigned in 1943 as general superintendent of motive power and machinery of the National Railways of Mexico, has returned to his former position, with headquarters as before at

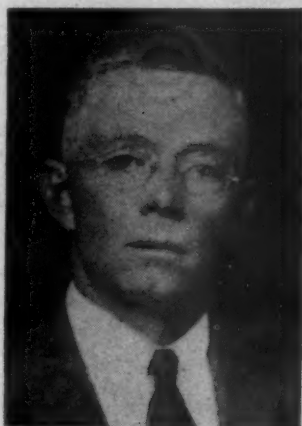


Pedro C. Morales

Buenavista Station, Mexico City, D. F., succeeding **Santos Fierro**, who has been assigned to other duties. Mr. Morales entered railway service in 1894 as an apprentice of the Inter-Oceanic at San Lazaro, and in 1897 he went with the

National de Tehuantepec as a foreman, later being promoted to master mechanic. In 1903 Mr. Morales went with the National Railways of Mexico where he held several minor positions until 1911 when he was promoted to assistant general superintendent of motive power and machinery, with headquarters at Mexico City. In 1913 he was advanced to general superintendent of motive power and machinery, with the same headquarters, holding that position until 1916 when he resigned. In 1920 he returned to the railway in the same position and five years later he again resigned. Within a few months Mr. Morales was again appointed general superintendent of motive power and machinery and in 1935 he was retired on pension. In May, 1941, he was reappointed to his former position and in January, 1943, he resigned, and was again reappointed, effective September 1.

L. A. Porter, whose appointment as assistant general superintendent, motive power, of the Seaboard Air Line with headquarters at Norfolk, Va., was announced in the *Railway Age* of October 7, was born October 17, 1889, in Culpeper County, Va. He was graduated from Virginia Polytechnic Institute in 1910 and attended the Uni-



L. A. Porter

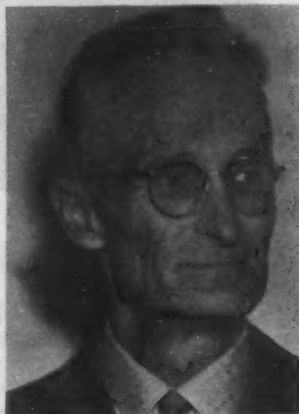
versity of Edinburgh in 1919. Mr. Porter entered railway service in August, 1910, with the Seaboard Air Line as a clerk and draftsman and then worked successively for the United States Steel Corporation and the Richmond Cedar Works from 1912 until 1916, when he rejoined the Seaboard Air Line as a draftsman. He served as a captain in the 29th Division of the U. S. Army in the first World War, and was employed at the U. S. Navy Yard, Norfolk, from August, 1919, until April, 1922, when he re-entered the service of the Seaboard Air Line as a draftsman. In January, 1926, he was named chief draftsman, remaining in this post until May, 1936, when he became mechanical engineer. In September, 1942, he was appointed assistant to the general superintendent of motive power, the position he held at the time of his recent promotion to assistant general superintendent of motive power at Norfolk.

R. W. Blackbird, general inspector of shop methods, Canadian National, at Montreal, Que., has retired after nearly 49 years

of continuous service. He has been succeeded by **H. Askew**, foreman in the tin and pipefitters' shop, car department, at Point St. Charles (Montreal).

ENGINEERING & SIGNALING MECHANICAL

John R. Rushmer, whose promotion to roadway engineer of the Atchison, Topeka & Santa Fe system with headquarters at Amarillo, Tex., was announced in the *Rail-*



John R. Rushmer

way Age of October 21, was born at Pueblo, Colo., on March 26, 1893, and entered railway service in 1914 as a chainman on the Santa Fe, being transferred to the chief engineer's office at Amarillo one year later. He entered the armed services during World War I, and after the war he returned to the chief engineer's office as a computer. In May, 1941, Mr. Rushmer was advanced to right of way agent and on July 1, 1942, he was promoted to assistant engineer, Western Lines, the position he held at the time of his new appointment.

SPECIAL

Dr. J. J. Brandabur, assistant supervising surgeon of the Chesapeake & Ohio at Huntington, W. Va., has been appointed chief medical examiner with the same headquarters.

D. P. Quillinan has been appointed assistant chief special agent of the Southern Pacific, with headquarters at San Francisco, succeeding **A. J. McKenna**, whose promotion to chief special agent was reported in the *Railway Age* of September 30.

Dr. Abelardo Monges Lopez, whose appointment as chief surgeon of the National Railways of Mexico, with headquarters at Mexico City, D. F., was announced in the *Railway Age* of August 12, succeeds **Dr. Francisco Campos**, who has been assigned to other duties.

Francis D. Kelley, who recently received his discharge from the U. S. Navy, has been appointed district manager, public relations, in the Gulf department of the Railway Express Agency at Atlanta, Ga. He succeeds **M. J. Harris**, whose appointment as southern traffic manager at Atlanta was announced in the *Railway Age* of September 23.

OBITUARY

W. I. Alexander, chief of freight tariff bureau, Canadian National, with headquarters at Montreal, Que., died on October 16. He was 52 years old.

William P. Hines, who retired in 1937 as general baggage agent of the Louisville & Nashville, died at his home in Louisville, Ky., recently.

Trond C. Sundem, assistant engineer, office of engineer, maintenance of way, of the New York Central System, died recently at Woodlawn, N. Y. He was 66 years old.

Luther Campbell Spengler, who served as assistant to the general superintendent of the Chesapeake & Ohio with headquarters at Huntington, W. Va., died on October 24 at Newport News, Va. He was 72 years old.

Gordon L. Whipple, who retired in 1942 as assistant vice-president of the Union Pacific, with headquarters at Omaha, Neb., died in that city recently. Mr. Whipple was born at Keithsburg, Ill., on January 30, 1872, and entered railway service in 1887, with the Chicago, Milwaukee & St. Paul (now the Chicago, Milwaukee, St. Paul & Pacific) as a telegraph operator. In 1894, he was promoted to train dispatcher and, in 1900, to chief dispatcher. In 1906, he was advanced to trainmaster and in 1910 he was further advanced to assistant superintendent of transportation. On February 1, 1913, he was promoted to superintendent of transportation, with headquarters at Chicago, and in October, 1922, he was advanced to general superintendent of transportation, with the same headquarters. Six months later, Mr. Whipple went with the Union Pacific as general superintendent of transportation with headquarters at Omaha and, in April, 1940, he was promoted to the position he held at the time of his retirement.

L. C. Mahoney, who retired in 1941 as general freight traffic manager of the Chicago, Burlington & Quincy, died at his home in Clearwater, Fla., on October 17. He was born at Rock Island, Ill., on April 10, 1876, and entered railway service on August 11, 1894, as a clerk on the Chicago, Milwaukee & St. Paul (now the Chicago, Milwaukee, St. Paul & Pacific). On November 1, 1906, he went with the Burlington as a clerk in the general freight department, later serving as chief clerk to the general freight agent and as chief clerk to the assistant freight traffic manager. On October 12, 1917, Mr. Mahoney was appointed assistant general freight agent, and on January 1, 1925, he was further promoted to general freight agent, with headquarters at Chicago. On January 1, 1936, he was advanced to assistant freight traffic manager of the Illinois-Iowa district, and on April 1, 1936, he was promoted to assistant freight traffic manager of the system. Two months later, Mr. Mahoney was advanced to freight traffic manager, with headquarters as before at Chicago, and on January 1, 1940, he was promoted to the position he held at the time of his retirement.

Would you



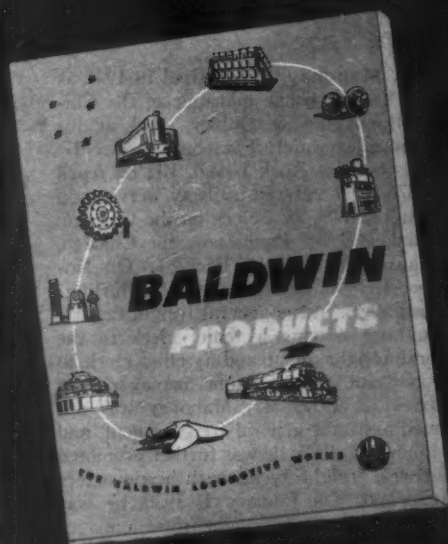
BALDWIN supplied the hydraulic elevators that raise and lower the stage of Radio City Music Hall.



BALDWIN testing machine of 3,000,000 pounds capacity can be so controlled that it will break the shell of a hatching egg without harming the chick.



BALDWIN builds hydraulic vulcanizers used in the manufacture of huge rubber tires like that shown.



BALDWIN

BALDWIN SERVES THE NATION WHICH THE RAILROADS HELPED TO BUILD

believe it?



BALDWIN hydraulic turbines, 115,000 horsepower capacity, driving huge electric power generators, are installed at Boulder Dam.



BALDWIN diesel engines are used as main propulsion units on minesweepers and for auxiliary power on many other vessels.



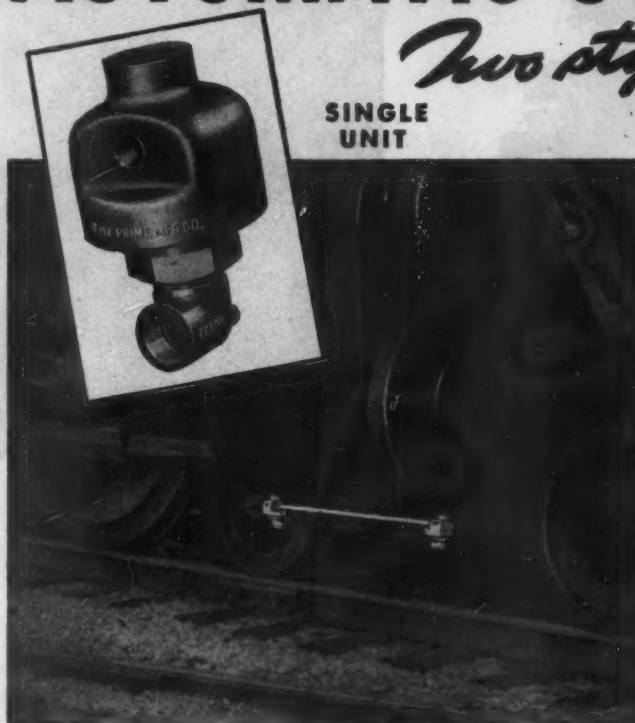
PRIME

THE ORIGINAL STEAM-OPERATED

AUTOMATIC CYLINDER COCKS

Two styles

**SINGLE
UNIT**



**DUPLEX
UNIT**



Automatically Relieves Dangerous Over-Pressures in Cylinders

As long as pressure is normal in a locomotive cylinder, the Prime Automatic Cylinder Cock remains closed. Steam from the boiler keeps it shut tight.

Should water or trapped steam cause excessive or dangerous pressures to develop within the cylinder, the force of those over-pressures immediately *opens* the Prime Cylinder Cock—releases these dangerous pressures to the atmosphere. After excess pressure is relieved, the cock closes instantly.

This opening and closing action of the Prime Cylinder Cock is entirely independent of the engineer—and takes place *automatically*!

Prime is the *original* steam-operated automatic cylinder cock. It has an impressive record of years of satisfactory service . . . saving many times its cost in locomotive repairs . . . on American and foreign railways.

Railroads Simplify Cylinder Lubrication Problem with **PRIME Automatic Cylinder Cocks**—Lubricant is forced into supply pipe and inserted directly into the cylinders, under boiler pressure and in atomized form, through the Prime Cylinder Cocks. The many railroads now using this method prove it to be correct in principle and remarkably successful in service.

Write for descriptive bulletin on Prime Cylinder Cocks and Operating Valves



**PRIME *Quick-Acting*
OPERATING VALVES**

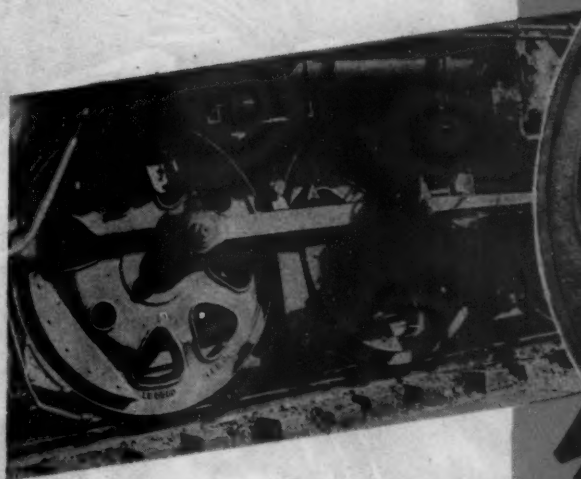
**GLOBE
TYPE**

Two Styles

**LEVER
TYPE**



THE PRIME MANUFACTURING COMPANY, MILWAUKEE 4, WISCONSIN



Greater Transverse Spoke Strength



LFM light weight alloy steel pistons and Universal sectional bull and packing rings contribute to the efficiency and economy of locomotive operations on many railroads.

TRANSVERSE spoke bending or curve thrust at the rim is one of the destructive stresses which Universal Driving Wheel Centers are skillfully engineered to resist. In comparison with conventional spoke-type wheels, more force is required to bend them transversely at the rim. Radial Strength is shown to be 130 per cent greater while transverse rim and compressive spoke strengths are 46 per cent and 12½ per cent more, respectively. LFM Universal Driving Wheel Centers eliminate stress-induced flat spots, avoid resultant damage to track and equipment. Let us send you authoritative comparison data showing why these advanced wheel centers are used by representative roads.

THE LOCOMOTIVE FINISHED MATERIAL CO.

ATCHISON, KANSAS • NEW YORK CITY • CHICAGO, ILL.



Perhaps I'm one war older than you are!

Believe me, after the last war I saw what happened. Will you let me give you some advice?

If you've got a job today—for your own sake, fellow, be smart! Think twice before you fight for a wage increase that might force prices up and land you behind the eight-ball in the end.

Salt away as much as you can out of your present wages. Put money in the bank, pay up your debts, buy more life insurance. Above all, put every extra penny you can lay your hands on into Uncle Sam's War Bonds—and hold 'em!

Nobody knows what's coming when the Germans and the Japs are licked. Perhaps we'll have good times. Okay. You'll be sitting pretty. Perhaps we'll have bad times. Then they're sure to hit hardest on the guy with nothing saved.

The best thing you can do for your country right now is not to buy a thing you can get along without. That helps keep prices down, heads off inflation, helps to insure good times after the war.

And the best thing you can do for your own sake, brother, if there should be a depression ahead, is to get your finances organized on a sound basis of paid-up debts—and

have a little money laid by to see you through!

4 THINGS TO DO to keep prices down and help avoid another depression

1. Buy only what you really need.
2. When you buy, pay no more than ceiling price. Pay your ration points in full.
3. Keep your own prices down. Don't take advantage of war conditions to ask for more—for your labor, your services, or the goods you sell.
4. Save. Buy and hold all the War Bonds you can afford—to help pay for the war and insure your future. Keep up your insurance.

**HELP
US
KEEP**

PRICES DOWN

A United States War Message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America.

ROCK ISLAND'S NEW LOCOMOTIVES OF 5000 CLASS EQUIPPED WITH ELECTROMATIC SIGNAL FOAM-METER

Modern locomotive installations include precision control of blow-down with the Signal Foam-Meter. The device eliminates wasteful excessive blowing and assures safe boiler water concentrations at all times, regardless of fluctuations in feedwater.

Foam-Meter Signals Enginemen as to Foaming Tendencies

The Foam-Meter signal, installed in the cab as illustrated here, automatically shows a warning light when expanding water reaches a dangerous level owing to foam in the boiler. At the same time it opens a blowoff valve. Surplus water is then blown off carrying with it accumulations of sludge and foreign matter. While the Foam-Meter is in operation the boiler's full steam-capacity can be maintained.

We invite your inquiries as to why Foam-Meter can give you foam-free boilers without unnecessary blow-down.



Interior of new Rock Island engine cab showing Foam-Meter signal installation.

Electromatic
FOAM-COLLAPSING
BLOWOFF SYSTEM

ELECTRO-CHEMICAL ENGINEERING CORP.
Dept. T, 310 S. Michigan Ave., Chicago 4, Ill.
Subsidiary of Dearborn Chemical Company

AIR DUMP CARS
RAIL CARS
MINE CARS
AND
LOCOMOTIVES
AXLESS TRAINS
COMPLETE
HAULAGE SYSTEMS

DIFFERENTIAL STEEL CAR CO.
FINDLAY, OHIO

INCREASED PASSENGER COMFORT

Steam Couplers
A. R. A. STANDARD

Flexible Conduits
REPLACES RUBBER HOSE

Vapor Systems
THERMOSTATIC CONTROL

Air Conditioning Controls

WITH

VAPOR

ENGINEERED PRODUCTS

VAPOR CAR HEATING CO., INC.
RAILWAY EXCHANGE, CHICAGO, ILL.

VAPOR SYSTEM
THE ONLY ITS GENUINE VAPOR ENGINEERING
GUARANTEED EFFICIENCY

MERCURY
would be just
an "also ran"
today...

Mercury, the guide and symbol of speed to the ancient Romans, would have no chance in the modern age of Speed.

Streamlined, fast, modern trains have steadily increased their speed, without sacrificing safety. High speed demands good headlights with dependable wiring.

Okonite has kept pace with modern standards and requirements. Okonite Headlight Wire, which resists vibration and high temperatures, assures continuous reliability in the operation of locomotive headlights, rear tender and cab lights.

You will find hundreds of the most modern locomotives are equipped with Okonite Headlight Wire. The Okonite Company, Passaic, New Jersey.

OKONITE
INSULATED WIRES AND CABLES

GET TOGETHER DEPARTMENT

Educational Services for RAILROAD MEN

Our New Service
on
Diesel Locomotive
Operation
is highly recommended
for
Engineers and Firemen

*The Railway
Educational Bureau*
Omaha 2, Nebraska

Railway Equipment and accessories

We can furnish rails, spikes,
bolts, angle bars, locomotives,
cranes and other railway ma-
terial. Write, wire or phone for
prices.

Sonken-Galamba Corp.
108 N. 2ND STREET
Kansas City, Kans.

POSITION OPEN

Leading railroad equipment
manufacturer is seeking a man
for a permanent sales engineer-
ing position. He must be be-
tween 30 and 35 years of age,
good education, and have had
several years of railway signal
experience. Give full particulars
in reply which will be kept con-
fidential. ADDRESS BOX 689,
RAILWAY AGE, 30 Church
Street, New York 7, N. Y.

RAILROAD ENGINEERING SERVICE

Design — Detail — Tracing
We specialize in rolling equip-
ment. Specialty manufacturer's
drafting solicited. All AAR and
ICC requirements compiled with.
Transportation Engineering Co.,
255 Park Avenue, (Room 231)
New York 17, N. Y.

WANTED

Sales Engineer to handle me-
chanical specialties for railroad
and other transportation in-
dustries. In reply give full per-
sonal and business qualifications.
Operation headquarters, Chicago.
ADDRESS BOX 693, RAIL-
WAY AGE, 30 CHURCH ST.,
NEW YORK 7, N. Y.

Your
**WASTE PAPER
SHOULD
FIGHT!**

FOR SALE

Marion, Type 37, Dragline built
in 1927, electrically operated, 440
Volt, 60 Cycle, three-phase. 45'
boom equipped with a 1½ yd.
drag and 2 yd. clam shell.

Price is \$10,000.00 and machine
is in first-class condition and
ready to operate.

Can be seen at St. David, Il-
linois. ADDRESS BOX 697,
RAILWAY AGE, 30 CHURCH
STREET, NEW YORK 7,
N. Y.



Your old newspapers
can help speed the re-
turn of the nation to
peacetime pursuits—
if you make sure they're
collected.

OHIO LOCOMOTIVE CRANES

GASOLINE - DIESEL
STEAM - ELECTRIC

OHIO LOCOMOTIVE CRANE Co. CLEVELAND, OHIO

Freight Car Prices REDUCED!

Now Only Half of Recent Peak Prices—
\$500 to \$1950 Each!

- 55, Hopper, Double, 50-Ton
- 10, Hopper, Side Discharge, 50-Ton
- 90, Refrigerator, 40-Ft., 40-Ton
- 16, Refrigerator, 36-Ft., 40-Ton
- 13, Ballast, Composite, 50-Ton
- 25, Box, 26-Ft., 40-Ton
- 6, Dump, Koppel, Automatic, 30-Yd., 50-Ton
- 18, Dump, K & J Automatic, 16-Yd., 40-Ton
- 4, Dump, Western, 20-Yd., 40 & 50-Ton
- 1, Dump, Koppel Drop Door, 20-Yd., 40-Ton
- 10, Flat, 40-Ft., 50-Ton
- 35, Gondola, Composite, 36-Ft. & 40-Ft., 40-Ton & 50-Ton
- 9, Gondola, Steel, 50-Ton, High Side
- 30, Tank, 8000-gallon, 40-Ton
- 10, Tank, 8000-gallon, 40-Ton

All cars are priced to sell!

IRON & STEEL PRODUCTS, INC.

39 years' experience

13486 S. Brainard Ave.

Chicago 33, Illinois

"ANYTHING containing IRON or STEEL"

LOCOMOTIVES

- 1—16x24 American 50-ton saddle tank, 0-4-0
- 1—19x26 American 67-ton, separate tender, new 1923
- 2—21x24 Baldwin 78-ton side tanks, 0-6-0, rebuilt
- 1—21x26 American, 85 ton, separate tender, 0-6-0
- 4—23x30 American, 114-ton separate tender, 2-8-0, exceptionally fine conditioned engines
- 1—23x32 Baldwin, 119 ton, Consolidation, 2-8-0, new 1920
- 1—25x30 American, 118 ton, separate tender, 8 wheel switcher, 0-6-0
- 5—28x32 American, 181 ton, Mikado, 2-8-2
- 1—20 ton Whitcomb 36" ga. Diesel locomotive, Rebuilt.
- 1—20 ton Plymouth, gasoline operated standard gauge. Excellent condition.

CARS

- 1—20 cu. yd. Western dump car, rebuilt
- 4—20 cu. yd. K&J dump cars, rebuilt
- 10—50-ton twin hopper coal cars
- 22—50-ton composite gondola cars
- 100—40-ton box cars, steel underframes, 38' long
- 1—Brill Model 55 comb. passenger & baggage car

WIRE WRITE PHONE

Thomas F. Carey Co., Inc.

130 LIBERTY STREET, NEW YORK 6, N. Y.

Telephone Barclay 7-1770

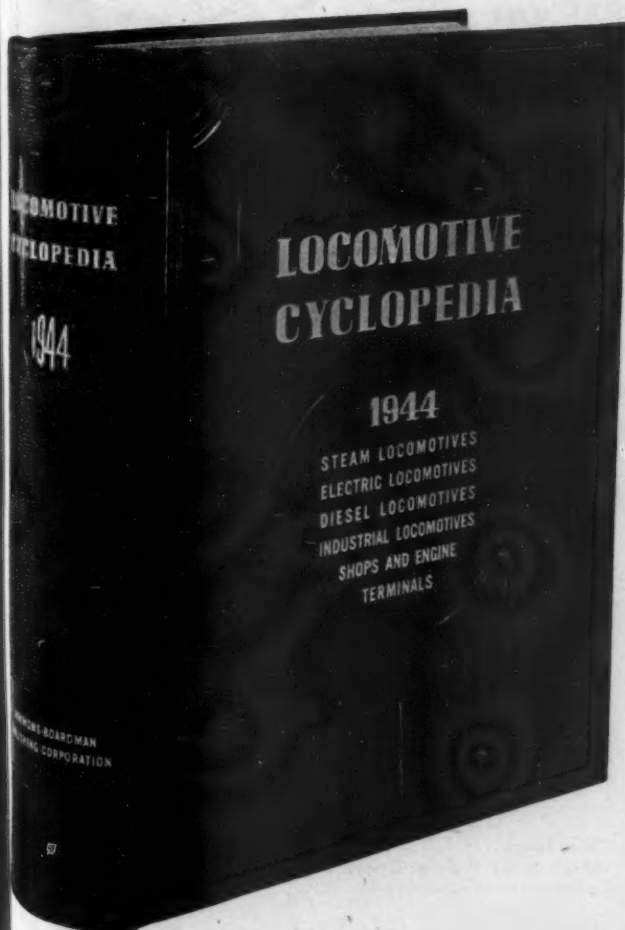
BUY

WAR BONDS

Announcing the

LOCOMOTIVE CYCLOPEDIA

Twelfth Edition



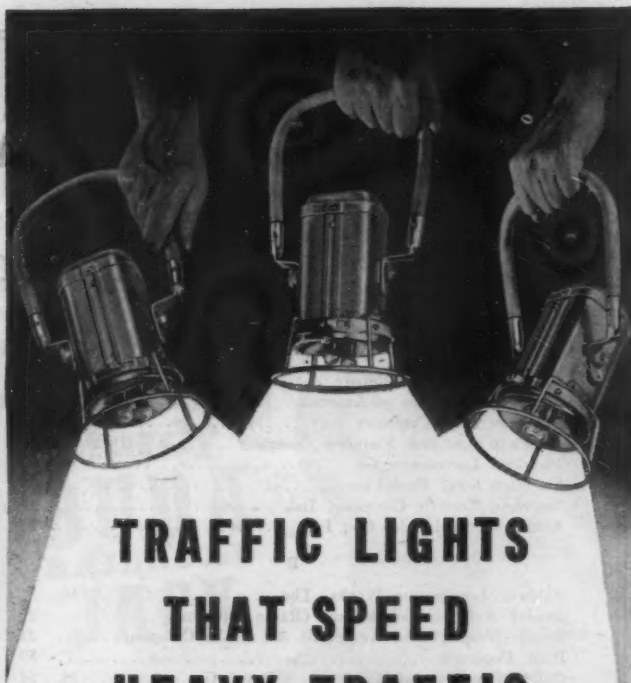
The Twelfth Edition of this well known book will be ready in November. Completely revised by a staff of experts it will contain 1,300 pages, 3,000 drawings and photographs, and 13 pages in full color. It will be 9x12x3 1/2 inches in size, weigh 9 pounds, be bound in artificial leather and priced at \$5.00 postpaid. Order a copy in advance on Ten Days' Approval.

FREE EXAMINATION COUPON

Simmons-Boardman Publishing Corporation
30 Church Street, New York 7, N. Y.

When ready, send me postpaid a copy of the new Twelfth Edition of the LOCOMOTIVE CYCLOPEDIA, on Ten Days' Free Examination. If satisfactory I will remit the list price of \$5.00. Otherwise I will return the book without obligation.

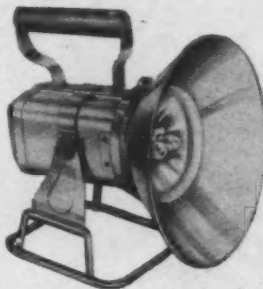
Name
Address
City State
Company Position
(This offer is limited to retail purchasers in the United States and Canada) R.A. 10-28-44



TRAFFIC LIGHTS THAT SPEED HEAVY TRAFFIC

Speeding up the heavy traffic of vital war goods is one thing Justrite really does . . . but good! That's because when the Justrite Trainmen's Lantern gives a signal, there's no doubt about what it is. That brilliant 662 candlepower lantern shoots out a beam that pierces even foggy and murky nights.

Besides that, it gives plenty of light to the sides *from the same bulb at the same time* . . . gives trainmen plenty of light *around* them for their protection.



INSPECTOR'S LANTERN

The Inspector's Lantern gives day-time efficiency to night crews inspecting cars, hotboxes or doing other close work. Powerful beam . . . 7 inch highly polished reflector . . . twin bulbs and flick-of-the-switch light. Good for years of dependable, trouble-free operation.

JUSTRITE OILY WASTE CAN

Helps protect vital spots from fires caused by flammable materials, rags and waste. The Oily Waste Can holds these dangerous materials safely. Built in sizes to fit most needs.



Write today for prices and information
on Justrite Safety Products

JUSTRITE MANUFACTURING COMPANY
2063 N. Southport Ave., Dept. D-1, Chicago 14, Ill.

JUSTRITE *Safety Products*
SAFETY CANS + FILLING CANS + OILY WASTE CANS
APPROVED SAFETY ELECTRIC LANTERNS

Index to Advertisers

October 28, 1944

A

Ajax-Consolidated Company	Back Cover
Aluminum Company of America	36
American Arch Company	43
American Car and Foundry Company	7
American Locomotive Co.	12, 13
American Steel Foundries	31
American Throttle Company, Inc.	44
Armco Railroad Sales Co., Inc.	25

B

Baldwin Locomotive Works, The	50, 51
Bendix Aviation Corporation (Radio Division)	27
Bendix-Westinghouse Automatic Air Brake Company	21
Buda Company	59
Budd Manufacturing Company, Edward G.	10, 11
Byers Company, A. M.	Front Cover

C

Cardwell-Westinghouse Co.	26
Carey Co., Inc., Thomas F.	56
Carnegie-Illinois Steel Corporation	8, 9
Climax Molybdeum Company	20
Colorado Fuel and Iron Corporation, The	15
Columbia Steel Company	8, 9

D

Differential Steel Car Co.	55
----------------------------	----

E

Electro-Chemical Engineering Corp., Subsidiary of Dearborn Chemical Co.	55
Electro-Motive Division, General Motors Corporation	40
Evans Products Company	2

F

Fabreeka Products Company, Incorporated	18
Fairbanks, Morse & Co.	17
Franklin Railway Supply Co., Inc.	42

G

General Electric Company	12, 13
Get Together Department	56

H

Harbison-Walker Refractories Co.	43
Hunt-Spiller Mfg. Corporation	45

I

Inland Steel Company	3
Iron & Steel Products, Inc.	56

J

Johns-Manville	24
Justrite Manufacturing Company	57

L

Lima Locomotive Works, Inc.	41
Locomotive Finished Material Co., The	53

M

Mt. Vernon Car Mfg. Co. Division of H. K. Porter Company, Inc.	4, 5
--	------

N

National Bearing Metals Corp.	35
National Malleable and Steel Castings Co.	28

O

Ohio Locomotive Crane Co.	56
Okonite Company, The	55
Oxweld Railroad Service Company, The	33

P

Porter Company, Inc., H. K.	4, 5
Prime Mfg. Company, The	52
Pullman-Standard Car Mfg. Co.	19

R

Railway Educational Bureau, The	56
Railway Steel Spring, Division American Locomotive Co.	34
Republic Steel Corporation	29
Ryerson & Son, Joseph T.	58

S

Schaefer Equipment Company	22
Simmons-Boardman Publishing Corporation	56, 57
Sinclair Refining Company	23
Sonken-Galamba Corp.	56
Superheater Company, The	44

T

Time, Inc.	16
Timken Roller Bearing Company, The	14
Transportation Engineering Co.	56

U

Union Carbide and Carbon Corporation	33
Union Switch & Signal Company	38, 48, 49
United States Plywood Corporation	30
United States Rubber Company	32
United States Steel	8, 9
United States Steel Export Company	8, 9

V

Vapor Car Heating Co.	55
-----------------------	----

W

Westinghouse Air Brake Co.	46, 47
----------------------------	--------

STEEL in stock at
RYERSON

• Ryerson has the steel you need ready for immediate shipment. Ten convenient Ryerson plants stock more than ten thousand kinds, shapes and sizes of steel and allied products. Joseph T. Ryerson & Son, Inc. Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City.

Principal Products Include:

Structurals	Strip	Stainless	Bobbitt, Solder
Stay Bolt Iron	Alloys	Mechanical Tubing	Reinforcing
Plates	Cold Finished Steel	Boiler Tubes	Nails, Rivets, etc.
Sheets	Tool Steel	Welding Rod	Machinery

With me doing the work,
lifting the front end of loco-
motives becomes a simple task

I'm the *Lift* in every
sturdy
BUDA
RAILROAD
JACK

- Sizes and models for all lifting jobs
—Mechanical and Hydraulic Jacks.
- Write for Buda Jack
Pocket Manual.

BUDA

15401 Commercial Ave.
HARVEY (Chicago Suburb) **ILLINOIS**

October 28, 1944

59



The original AJAX principle has not been changed, it was right from the start.

"Certified" A.A.R.

AJAX

Hand Brake

A Symbol of Leadership

Over one-half Million AJAX Hand Brakes have been delivered

Considerably over 500,000 Ajax Brakes, or nearly one-third of all freight equipment and thousands of steam and Diesel locomotives are equipped with Ajax Brakes—insuring safe, dependable service at the lowest possible maintenance cost.

Ajax give you Rockwell and Magna-fluxed tested, heat treated pinions and pawls . . . heat treated and proof tested chains . . . all working parts factory machined . . . graduated and forced controlled release, with positive through connection from hand wheel to foundation brake rigging at all times . . . full braking power in any emergency . . . *safety for brakemen . . . equipment and lading.*

Specify Ajax Hand Brakes for all freight equipment.

Always Dependable

AJAX-CONSOLIDATED COMPANY

CHICAGO 50, ILLINOIS